STIC Search Report
EIC 3700

STIC Database Tracking Number: 198305

TO: James Swiger, III **Location: RND 6C04** **Art Unit: 3733** **Tuesday, August 15, 2006** **Case Serial Number: 10/670142**	**From: Edward Hart** **Location: EIC-3700** **Randolph – 8B21** **Phone: 571-272-2512** **edward.hart@uspto.gov**

Search Notes

Examiner Swiger, III,

Attached are the results for the above search you requested.

I searched HCAPLUS, including the foreign patents database WPIX.

If you feel that the results are not on target please feel free to contact me so that I may refine your search.

Sincerely,
Edward Hart
Technical Information Specialist
EIC –3700 8B21
U.S. Patent & Trademark Office
Phone: 571-272-2512
edward.hart@uspto.gov

RUSH

SEARCH REQUEST FORM

Access DB# 198305

Scientific and Technical Information Center

Requester's Full Name: James Swiger Examiner #: 81582 Date: 8/10/06
Art Unit: 3733 Phone Number 30 2-5557 Serial Number: 10/670,142
Mail Box and Bldg/Room Location: 6c04 Results Format Preferred (circle): PAPER DISK, E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Filamentous embolization device with expansible elements

Inventors (please provide full names): George Greene, Gregory Cruise, Michael Constant
Brian Cox

Earliest Priority Filing Date: 10/4/1999

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

This is a cont of 10/157,621
and a CIP of 3 others. (* restricted)

flexible, filamentous
wire elastic
loop, 3-D
* embolizing element

- hydrophilic polymer (in part) (27)
- hydrophilic polymeric linkage element (31)
- stretch resistant non-releasably fixed (56)
- expansible embolizing element.

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EDUARDO C. ROBERT
SUPERVISORY PATENT EXAMINER

Please Rush!

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STAFF USE ONLY

Type of Search

Vendors and cost where applicable

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=> file hcaplus, medline, embase, biosis, scisearch
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               SET COST OFF

     FILE 'HCAPLUS, MEDLINE, EMBASE, BIOSIS, SCISEARCH' ENTERED AT 09:10:29 ON
     15 AUG 2006
                E GREENE G/AU
L1           449 S E3,E17,E23-24
                E GREENE GEORGE/AU
L2            22 S E3,E19-20
                E CRUISE G/AU
L3            57 S E3-E7
                E CONSTANT M/AU
L4           121 S E3,E23-24
                E COX B/AU
L5          2042 S E3,E14
                E COX BRIAN/AU
L6           385 S E3,E12-E13
                E TRAN T/AU
L7          1048 S E3
                E TRAN TERRANCE/AU
L8             1 S E3                                    Inventor's
L9          4110 S L1-L8
L10           23 S L9 AND (FILAMENT? OR EXPANSILE OR EMBOLIZATION)

     FILE 'HCAPLUS, MEDLINE, EMBASE, BIOSIS, SCISEARCH' ENTERED AT 09:19:11 ON
     15 AUG 2006

=> d ibib abs l10 tot

L10  ANSWER 1 OF 23  HCAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:         2003:76526  HCAPLUS
DOCUMENT NUMBER:          138:127010
TITLE:                    Methods, polymeric materials and apparatus for
                          deterring or preventing endoleaks following
                          endovascular graft implantation
INVENTOR(S):              Rosenbluth, Robert F.; Cox, Brian J.;
                          Lenker, Jay A.
PATENT ASSIGNEE(S):       Microvention, Inc., USA
SOURCE:                   PCT Int. Appl., 42 pp.
                          CODEN: PIXXD2
```

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003007785	A2	20030130	WO 2002-US22242	20020712
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
JP 2004537353	T2	20041216	JP 2003-513399	20020712
PRIORITY APPLN. INFO.:			US 2001-906415 A	20010716
			WO 2002-US22242 W	20020712

AB Methods and apparatus for treating or preventing endoleaks after an endovascular graft (e.g., a stent, tubular graft, stent-graft, coated stent, covered stent, intravascular flow modifier or other endovascular implant that affects, limits or prevents blood flow into a vascular defect such as an aneurysm, arterio-venous fistula, arterio-venous malformation, vessel wall perforation, etc.) has been implanted in the vasculature of a human or veterinary patient. An **expansile** polymeric material, such as a swellable polymer (e.g., a hydrogel), a flexible or elastomeric polymer foam (e.g. silicone, polyurethane, etc.) or a carrier member (e.g. a coil, **filament**, wire, etc.) that carries a quantity of such **expansile** polymer is delivered into a perigraft space (i.e., space between the endovascular graft and the surrounding blood vessel wall) such that the polymeric material expands in situ to substantially fill the perigraft space or a portion thereof. The **expansile** polymeric material is delivered into the perigraft space through a catheter and/or cannula that is placed prior to, during or after the implantation of the endovascular graft. The invention includes an injector apparatus that is usable to deliver the **expansile** polymeric material through the wall of a previously implanted graft. After delivery into the perigraft space, the expanded polymeric material expands so as to fill all or an intended portion of the perigraft space in a manner that substantially prevents addnl. blood from leaking or flowing into such perigraft space. One type of blood-absorbing, porous, **expansile** polymeric material usable in this invention is a super-**expansile** hydrogel.

L10 ANSWER 2 OF 23 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:63661 HCAPLUS
TITLE: Device and method for controlling injection of liquid embolic composition
INVENTOR(S): Cragg, Andrew H.; Walker, Blair D.; Perl, John, II; Jones, Michael; **Greene, George Robert**; Wallace, George; Greff, Richard J.
PATENT ASSIGNEE(S): Micro Therapeutics, Inc., USA
SOURCE: U.S., Cont.-in-part of Ser. No. US 1997-953149, filed on 17 Oct 1997, now patented, Pa
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6511468	B1	20030128	US 1999-387274	19990831
JP 2001520085	T2	20011030	JP 2000-516716	19980923
JP 2003508107	T2	20030304	JP 2001-519825	20000807
US 2003040733	A1	20030227	US 2002-242469	20020913
US 2003225391	A1	20031204	US 2003-361851	20030211
US 6964657	B2	20051115		

PRIORITY APPLN. INFO.:

US 1997-953149	A2	19971017
WO 1998-US3344	W	19980923
US 1999-387274	A	19990831
US 2000-573154	A1	20000519
WO 2000-US40603	W	20000807

AB A liquid embolic delivery system is provided for trapping an injected liquid embolic composition to prevent the liquid embolic from solidifying or otherwise passing outside of an **embolization** area. The delivery system includes a catheter for delivery of a liquid embolic composition and a containment member positioned at a distal end of the catheter which is shaped to trap the liquid embolic composition delivered through the lumen of the catheter. The containment member is formed as a brush, nest, sponge, swab, flexible sack, or other shape into and around which the liquid embolic composition is injected. The liquid embolic composition is trapped or meshes with the containment member during solidification containing the liquid embolic and preventing the embolic composition from passing into the blood stream.

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 3 OF 23 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:716008 HCAPLUS
DOCUMENT NUMBER: 137:237799
TITLE: Hydrogels that undergo volumetric expansion in response to changes in their environment and their methods of manufacture and use
INVENTOR(S): **Cruise, Gregory M.; Constant, Michael J.**
PATENT ASSIGNEE(S): Microvention, Inc., USA
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002071994	A1	20020919	WO 2002-US5988	20020228

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,

BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2002176880	A1	20021128	US 2001-804935	20010313
US 6878384	B2	20050412		
CA 2439925	AA	20020919	CA 2002-2439925	20020228
EP 1372553	A1	20040102	EP 2002-750563	20020228
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2002008034	A	20040225	BR 2002-8034	20020228
JP 2004528880	T2	20040924	JP 2002-570954	20020228
CN 1617694	A	20050518	CN 2002-806384	20020228
US 2005196426	A1	20050908	US 2005-90806	20050324
PRIORITY APPLN. INFO.:			US 2001-804935 A	20010313
			WO 2002-US5988 W	20020228

AB Hydrogels that expand volumetrically in response to a change in their environment (e.g., a change in pH or temperature) and their methods of manufacture and use. Generally, the hydrogels are prepared by forming a liquid reaction mixture that contains (a) monomer(s) and/or polymer(s) at least portion(s) of which are sensitive to environmental changes (e.g., changes in pH or temperature), (b) a crosslinker and (c) a polymerization initiator. If desired, a porosigen may be incorporated into the liquid reaction mixture to create pores. After the hydrogel is formed, the porosigen is removed to create pores in the hydrogel. The hydrogel may also be treated to cause it to assume a non-expanded volume in which it remains until a change in its environment causes it to expand. These hydrogels may be prepared in many forms including pellets, **filaments**, and particles. Biomedical uses of these hydrogels include applications wherein the hydrogel is implanted in the body of a patient and an environmental condition at the implantation site causes the hydrogel to expand it situ. A hydrogel was prepared by the polymerization of acrylamide, sodium acrylate, and N,N-methylene-bis-acrylamide. The hydrogel can be used for **embolization** of aneurysm.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 4 OF 23 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:616378 HCAPLUS
DOCUMENT NUMBER: 137:175033
TITLE: Radiation cross-linked polymer hydrogels
INVENTOR(S): **Cruise, Gregory M.**
PATENT ASSIGNEE(S): Microvention, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 6 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002111392	A1	20020815	US 2001-783762	20010214
US 6537569	B2	20030325		
CA 2437870	AA	20020822	CA 2002-2437870	20020213
WO 2002064189	A2	20020822	WO 2002-US4166	20020213
WO 2002064189	A3	20021205		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,				

LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1365704	A2	20031203	EP 2002-723139	20020213
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2002007249	A	20040309	BR 2002-7249	20020213
CN 1496241	A	20040512	CN 2002-804996	20020213
JP 2004520134	T2	20040708	JP 2002-563981	20020213
PRIORITY APPLN. INFO.:			US 2001-783762 A	20010214
			WO 2002-US4166 W	20020213

AB Radiation-crosslinked, biodegradable, synthetic hydrogels and their use in various applications, including certain medical applications wherein the hydrogel(s) are implanted on or in the body of a human or animal patient are described. Radiation-crosslinked, biodegradable, synthetic hydrogels of this invention may be prepared by irradiating monomers (e.g., ethylenically unsatd. hydrocarbons such as acrylic monomers and methacrylic monomers) or polymers, some or which are biodegradable or which contain biodegradable units or subunits. Specific medical applications of these radiation-crosslinked, biodegradable, synthetic hydrogels include applications wherein the hydrogel is used for hemostasis, tissue augmentation, tissue engineering, **embolization**, closure of vascular punctures or wounds and other medical applications. For example, a biodegradable PEG hydrogel was prepared from monomethoxypoly(ethylene glycol) (mPEG)-succinic acid-mPEG macromer. The mPEG dimer (17.05 g) was dissolved in 82.5 g of 50 mM sodium phosphate pH 5, the macromer solution was placed into syringes and the syringes were irradiated with 30 kGy of electron beam radiation.

L10 ANSWER 5 OF 23 MEDLINE on STN

ACCESSION NUMBER:	95238447 MEDLINE
DOCUMENT NUMBER:	PubMed ID: 7721855
TITLE:	Neurofilament protein heterotetramers as assembly intermediates.
AUTHOR:	Cohlberg J A; Hajarian H; **Tran T**; Alipourjeddi P; Noveen A
CORPORATE SOURCE:	Department of Chemistry and Biochemistry, California State University, Long Beach 90840, USA.
SOURCE:	The Journal of biological chemistry, (1995 Apr 21) Vol. 270, No. 16, pp. 9334-9. Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY:	United States
DOCUMENT TYPE:	Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:	English
FILE SEGMENT:	Priority Journals
ENTRY MONTH:	199505
ENTRY DATE:	Entered STN: 5 Jun 1995 Last Updated on STN: 5 Jun 1995 Entered Medline: 23 May 1995

AB Evidence is presented for the existence of a soluble heterotetramer containing the low and middle molecular weight neurofilament (NF) proteins, NF-L and NF-M, and one containing the low and high molecular weight proteins, NF-L and NF-H, and for their role in **filament** assembly. When a mixture of either pair of proteins was renatured in 2 M urea, 20 mM Tris, pH 7.2, a new band representing a complex was observed

in native gel electrophoresis. No new band was observed with a mixture of NF-M and NF-H. Two-dimensional gel electrophoresis showed that treatment of the complexes with SDS caused them to dissociate into their constituent polypeptide chains. Native neurofilaments dissociated in 2 M urea into a mixture of LM and LH complexes. Titration of NF-L with NF-M indicated that complex formation was complete at an approximately equimolar ratio of the two proteins. The LM complex had a sedimentation coefficient, s20,w, of 4.4 S, consistent with a tetrameric structure. Dialysis of a solution of the LM complex against 50 mM 4-morpholineethanesulfonic acid, 0.17 M NaCl, pH 6.25, led to the formation of 10-nm **filaments** in good yield. These results suggest that NF protein heterooligomers are intermediates in NF assembly and disassembly.

L10 ANSWER 6 OF 23 MEDLINE on STN
ACCESSION NUMBER: 83268435 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6876007
TITLE: [Nonsurgical treatment of pulmonary arteriovenous aneurysms].
Le traitement non chirurgical des anevrysmes arterio-veineux pulmonaires.
AUTHOR: Remy J; Lemaitre L; Harry G; **Constant M**; Saint-Michel J; Wallaert B
SOURCE: Journal de radiologie, (1983 Apr) Vol. 64, No. 4, pp. 263-74.
Journal code: 7906266. ISSN: 0221-0363.
PUB. COUNTRY: France
DOCUMENT TYPE: (CASE REPORTS)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: French
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198309
ENTRY DATE: Entered STN: 19 Mar 1990
Last Updated on STN: 19 Mar 1990
Entered Medline: 23 Sep 1983
AB Four patients with single or multiple pulmonary arteriovenous aneurysms, including three with Rendu-Osler's disease, were treated by occlusion with metallic spirals of the supplying pedicles during angiography. Results are compared with those of 16 cases treated by the same method and reported in the literature. The technique and its therapeutic indications are discussed based on these 20 cases and a review of documented data concerning 502 other cases with these aneurysms.

L10 ANSWER 7 OF 23 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 95341121 EMBASE
DOCUMENT NUMBER: 1995341121
TITLE: Spontaneous rupture of renal artery: Diagnosis by Doppler ultrasound and treatment by coil **embolization.**
AUTHOR: Beale T.J.; Aref F.; **Tran T.**
CORPORATE SOURCE: Department of Radiology, Central Middlesex Hospital, Acton Lane,Park Royal, London NW10 7NS, United Kingdom
SOURCE: Journal of Interventional Radiology, (1995) Vol. 10, No. 3, pp. 99-102. .
ISSN: 0268-0882 CODEN: JIRAE8
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 014 Radiology
018 Cardiovascular Diseases and Cardiovascular Surgery
028 Urology and Nephrology

LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 5 Dec 1995
Last Updated on STN: 5 Dec 1995

AB We report the case of a 27-year-old man who presented with renal colic. The diagnosis of spontaneous rupture of an intrarenal artery was made with Doppler ultrasound and successfully treated with coil **embolization** . This rare condition has an associated high mortality and is usually treated surgically. The diagnosis by Doppler ultrasound and subsequent treatment by coil **embolization** to our knowledge has not been described in the literature.

L10 ANSWER 8 OF 23 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 95133949 EMBASE
DOCUMENT NUMBER: 1995133949
TITLE: Neurofilament protein heterotetramers as assembly intermediates.
AUTHOR: Cohlberg J.A.; Hajarian H.; **Tran T.**; Alipourjeddi P.; Noveen A.
CORPORATE SOURCE: Dept. of Chemistry and Biochemistry, California State University, 1250 Bellflower Blvd.,Long Beach, CA 90840, United States
SOURCE: Journal of Biological Chemistry, (1995) Vol. 270, No. 16, pp. 9334-9339. .
ISSN: 0021-9258 CODEN: JBCHA3
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 16 May 1995
Last Updated on STN: 16 May 1995

AB Evidence is presented for the existence of a soluble heterotetramer containing the low and middle molecular weight neurofilament (NF) proteins, NF-L and NF-M, and one containing the low and high molecular weight proteins, NF-L and NF-H, and for their role in **filament** assembly. When a mixture of either pair of proteins was renatured in 2 M urea, 20 mM Tris, pH 7.2, a new band representing a complex was observed in native gel electrophoresis. No new band was observed with a mixture of NF-M and NF-H. Two-dimensional gel electrophoresis showed that treatment of the complexes with SDS caused them to dissociate into their constituent polypeptide chains. Native neurofilaments dissociated in 2 M urea into a mixture of LM and LH complexes. Titration of NY-L with NF-M indicated that complex formation was complete at an approximately equimolar ratio of the two proteins. The LM complex had a sedimentation coefficient, s(20,w), of 4.4 S, consistent with a tetrameric structure. Dialysis of a solution of the LM complex against 50 mM 4- morpholineethanesulfonic acid, 0.17 M NaCl, pH 6.25, led to the formation of 10-nm **filaments** in good yield. These results suggest that NF protein heterooligomers are intermediates in NF assembly and disassembly.

L10 ANSWER 9 OF 23 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2006:398224 BIOSIS
DOCUMENT NUMBER: PREV200600398538
TITLE: Vascular **embolization** with an expansible implant.
AUTHOR(S): Greene,, George R. [Inventor]; Rosenbluth, Robert F. [Inventor]; **Cox, Brian J.** [Inventor]
CORPORATE SOURCE: Costa Mesa, CA USA

ASSIGNEE: Microvention, Inc.
PATENT INFORMATION: US 07029487 20060418
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (APR 18 2006)
CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 9 Aug 2006
Last Updated on STN: 9 Aug 2006

AB A vascular implant formed of a compressible foam material has a compressed configuration from which it is expansible into a configuration substantially conforming to the shape and size of a vascular site to be embolized. Preferably, the implant is formed of a hydrophilic, macroporous foam material, having an initial configuration of a scaled-down model of the vascular site, from which it is compressible into the compressed configuration. The implant is made by scanning the vascular site to create a digitized scan data set; using the scan data set to create a three-dimensional digitized virtual model of the vascular site; using the virtual model to create a scaled-down physical mold of the vascular site; and using the mold to create a vascular implant in the form of a scaled-down model of the vascular site. To embolize a vascular site, the implant is compressed and passed through a microcatheter, the distal end of which has been passed into a vascular site. Upon entering the vascular site, the implant expands in situ substantially to fill the vascular site. A retention element is contained within the microcatheter and has a distal end detachably connected to the implant. A flexible, tubular deployment element is used to pass the implant and the retention element through the microcatheter, and then to separate the implant from the retention element when the implant has been passed out of the microcatheter and into the vascular site.

L10 ANSWER 10 OF 23 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2006:356343 BIOSIS
DOCUMENT NUMBER: PREV200600362284
TITLE: Method of manufacturing **expansile filamentous embolization** devices.
AUTHOR(S): Greene,, George R. [Inventor]; **Cruise, Gregory M.** [Inventor]; **Constant, Michael** [Inventor]; **Cox, Brian J.** [Inventor]; **Tran, Terrance** [Inventor]
CORPORATE SOURCE: Costa Mesa, CA USA
ASSIGNEE: Microvention Inc.
PATENT INFORMATION: US 07014645 20060321
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (MAR 21 2006)
CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 19 Jul 2006
Last Updated on STN: 19 Jul 2006

AB An **embolization** device for occluding a body cavity includes one or more elongated, expansible, hydrophilic embolizing elements non-releasably carried along the length of an elongated **filamentous** carrier that is preferably made of a very thin, highly flexible **filament** or microcoil of nickel/titanium alloy. At least one **expansile** embolizing element is non-releasably attached to the carrier. A first embodiment includes a plurality of embolizing elements fixed to the carrier at spaced-apart intervals along

its length. In second, third and fourth embodiments, an elongate, continuous, coaxial embolizing element is non-releasably fixed to the exterior surface of the carrier, extending along a substantial portion of the length of the carrier proximally from a distal tip, and optionally includes a lumenal reservoir for delivery of therapeutic agents. Exemplary methods for making these devices include skewering and molding the embolizing elements. In any of the embodiments, the embolizing elements may be made of a hydrophilic, macro-porous, polymeric, hydrogel foam material. In the second, third and fourth embodiments, the elongate embolizing element is preferably made of a porous, environmentally-sensitive, **expansile** hydrogel, which can optionally be made biodegradable and/or bioresorbable, having a rate of expansion that changes in response to a change in an environmental parameter, such as the pH or temperature of the environment.

L10 ANSWER 11 OF 23 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2006:134677 BIOSIS
DOCUMENT NUMBER: PREV200600145111
TITLE: Hydrogels that undergo volumetric expansion in response to changes in their environment and their methods of manufacture and use.
AUTHOR(S): **Cruise, Gregory M.** [Inventor]; **Constant, Michael J.** [Inventor]
CORPORATE SOURCE: Rancho Santa Margarita, CA USA
ASSIGNEE: MicroVention, Inc.
PATENT INFORMATION: US 06878384 20050412
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (APR 12 2005)
CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 22 Feb 2006
Last Updated on STN: 22 Feb 2006

AB Hydrogels that expand volumetrically in response to a change in their environment (e.g., a change in pH or temperature) and their methods of manufacture and use. Generally, the hydrogels are prepared by forming a liquid reaction mixture that contains a) monomer(s) and/or polymer(s) at least portion(s) of which are sensitive to environmental changes (e.g., changes in pH or temperature), b) a crosslinker and c) a polymerization initiator. If desired, a porosigen may be incorporated into the liquid reaction mixture to create pores. After the hydrogel is formed, the porosigen is removed to create pores in the hydrogel. The hydrogel may also be treated to cause it to assume a non-expanded volume in which it remains until a change in its environment causes it to expand. These hydrogels may be prepared in many forms including pellets, **filaments**, and particles. Biomedical uses of these hydrogels include applications wherein the hydrogel is implanted in the body of a patient and an environmental condition at the implantation site causes the hydrogel to expand in situ.

L10 ANSWER 12 OF 23 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2004:151538 BIOSIS
DOCUMENT NUMBER: PREV200400154543
TITLE: Mechanism for the deployment of endovascular implants.
AUTHOR(S): Ferrera, David A. [Inventor, Reprint Author]; **Greene, George R. Jr.** [Inventor]; **Cox, Brian J.** [Inventor]; Rosenbluth, Robert F. [Inventor]

CORPORATE SOURCE: ASSIGNEE: MicroVention, Inc.
PATENT INFORMATION: US 6689141 20040210
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Feb 10 2004) Vol. 1279, No. 2. http://www.uspto.gov/web/menu/patdata.html. e-file. ISSN: 0098-1133 (ISSN print).
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 17 Mar 2004
Last Updated on STN: 17 Mar 2004

AB A mechanism for the deployment of a **filamentous** endovascular device includes a flexible deployment tube having an open proximal end, and a coupling element attached to the proximal end of the endovascular device. The deployment tube includes a distal section terminating in an open distal end, with a lumen defined between the proximal and distal ends. A retention sleeve is fixed around the distal section and includes a distal extension extending a short distance past the distal end of the deployment tube. The endovascular device is attached to the distal end of the deployment tube by fixing the retention sleeve around the coupling element, so that the coupling element is releasably held within the distal extension of the deployment tube. In use, the deployment tube, with the implant attached to its distal end, is passed intravascularly through a microcatheter to a target vascular site until the endovascular device is located within the site. To detach the endovascular device from the deployment tube, a liquid is injected through the lumen of the deployment tube so as to apply pressure to the upstream side of the coupling element, which is thus pushed out of the retention sleeve by the fluid pressure. The coupling element may include an internal or peripheral purge passage that allows air to be purged from the microcatheter prior to the intravascular passage of the endovascular device.

L10 ANSWER 13 OF 23 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2003:400129 BIOSIS
DOCUMENT NUMBER: PREV200300400129
TITLE: **Filamentous** embolic device with **expansile** elements.
AUTHOR(S): **Greene, George R. Jr.** [Inventor, Reprint Author]; **Cruise, Gregory M.** [Inventor]; **Constant, Michael** [Inventor]; **Cox, Brian J.** [Inventor]
CORPORATE SOURCE: Mission Viejo, CA, USA
ASSIGNEE: Microvention, Inc., Aliso Viejo, CA, USA
PATENT INFORMATION: US 6602261 20030805
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Aug 5 2003) Vol. 1273, No. 1. http://www.uspto.gov/web/menu/patdata.html. e-file. ISSN: 0098-1133 (ISSN print).
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 27 Aug 2003
Last Updated on STN: 27 Aug 2003

AB An **embolization** device includes one or more expansible, hydrophilic embolizing elements non-releasably carried along the length of a **filamentous** carrier that is preferably made of a very thin, highly flexible **filament** or microcoil of nickel/titanium alloy. At least one **expansile** embolizing element is non-releasably attached to the carrier. A first embodiment includes a plurality of embolizing elements fixed to the carrier at spaced-apart intervals along its length. In a second embodiment, an elongate, continuous, coaxial

embolizing element is non-releasably fixed to the exterior surface of the carrier, extending along a substantial portion of the length of the carrier proximally from a distal tip. In either of the embodiments, the embolizing elements may be made of a hydrophilic, macroporous, polymeric, hydrogel foam material. In the second embodiment, the elongate embolizing element is preferably made of a porous, environmentally-sensitive, **expansile** hydrogel that expands, after a predetermined time delay, in response to a change in an environmental parameter, such as pH or temperature.

L10 ANSWER 14 OF 23 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2003:196958 BIOSIS
DOCUMENT NUMBER: PREV200300196958
TITLE: Radiation cross-linked hydrogels.
AUTHOR(S): **Cruise, Gregory M.** [Inventor, Reprint Author]
CORPORATE SOURCE: Rancho Santa Margarita, CA, USA
ASSIGNEE: MicroVention, Inc.
PATENT INFORMATION: US 6537569 20030325
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Mar 25 2003) Vol. 1268, No. 4. http://www.uspto.gov/web/menu/patdata.html. e-file. ISSN: 0098-1133 (ISSN print).
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 16 Apr 2003
Last Updated on STN: 16 Apr 2003

AB Radiation-crosslinked, biodrgradable, synthetic hydrogels and their use in various applications, including certain medical applications wherein the hydrogel(s) are implanted on or in the body of a human or animal patient. Radiation-crosslinked, biodrgradable, synthetic hydrogels of this invention may be prepared by irradiating monomers (e.g., ethylenically unsaturated hydrocarbons such as acrylic monomers and methacrylic monomers) or polymers, some or which are biodegradable or which contain biodegradable units or subunits. Specific medical applications of these radiation-crosslinked, biodrgradable, synthetic hydrogels include applicatins wherein the hydrogel is used for hemostasis, tissue augmentation, tissue engineering, **embolization**, closure of vascular punctures or wounds and other medical applications.

L10 ANSWER 15 OF 23 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2003:85838 BIOSIS
DOCUMENT NUMBER: PREV200300085838
TITLE: Vascular **embolization** with an expansible implant.
AUTHOR(S): **Greene, George R. Jr.** [Inventor, Reprint Author]; Rosenbluth, Robert F. [Inventor]; **Cox, Brian J.** [Inventor]
CORPORATE SOURCE: ASSIGNEE: MicroVention, Aliso Viejo, CA, USA
PATENT INFORMATION: US 6500190 20021231
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Dec 31 2002) Vol. 1265, No. 5. http://www.uspto.gov/web/menu/patdata.html. e-file. ISSN: 0098-1133 (ISSN print).
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 6 Feb 2003
Last Updated on STN: 6 Feb 2003

AB A vascular implant formed of a compressible foam material has a compressed

configuration from which it is expansible into a configuration substantially conforming to the shape and size of a vascular site to be embodied. Preferably, the implant is formed of a hydrophobic, macro porous foam material, having an initial configuration of a scaled-down model of the vascular site, from which it is compressible into the compressed configuration. The implant is made by scanning the vascular site to create a digitized scan data set; using the scan data set to create a three-dimensional digitized virtual model of the vascular site; using the virtual model to create a scaled-down physical mold of the vascular site; and using the mold to create a vascular implant in the form of a scaled-down model of the vascular site. To embolism a vascular site, the implant is compressed and passed through a micro catheter, the distal end of which has been passed into a vascular site. Upon entering the vascular site, the implant expands in situ substantially to fill the vascular site. A retention element is contained within the micro catheter and has a distal end detachably connected to the implant. A flexible, tubular deployment element is used to pass the implant and the retention element through the micro catheter, and then to separate the implant from the retention element when the implant has been passed out of the micro catheter and into the vascular site.

L10 ANSWER 16 OF 23 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2002:314032 BIOSIS
DOCUMENT NUMBER: PREV200200314032
TITLE: Apparatus and method for vascular **embolization.**
AUTHOR(S): Rosenbluth, Robert F. [Inventor, Reprint author]; **Cox, Brian J.** [Inventor]; Green, George R., Jr. [Inventor]
CORPORATE SOURCE: Laguna Niguel, CA, USA
ASSIGNEE: MicroVention, Inc.
PATENT INFORMATION: US 6375669 20020423
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Apr. 23, 2002) Vol. 1257, No. 4. http://www.uspto.gov/web/menu/patdata.html. e-file. CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 29 May 2002
Last Updated on STN: 29 May 2002

AB Apparatus for vascular **embolization**, deployable through a microcatheter, includes a flexible, elongate deployment tube dimensioned for insertion through the microcatheter, and a **filamentous** embolic device releasably attached to the distal end of the tube. The embolic device is controllably transformable from a soft, compliant state to a rigid or semi-rigid state. The embolic device may include a polymeric material that is transformable by contact with vascular blood or with a liquid that is cooler than vascular blood, or it may include a metallic material that is transformable by electrolytic corrosion. The embolic device may be a continuous **filamentous** polymeric extrusion; an elongate microcoil filled with polymeric material; an elongate, multi-segmented chain including polymeric interconnecting portions; or an elongate chain of metal segments that are fused together by electrolytic corrosion. An aneurysm is embolized with this apparatus by deploying a microcatheter so that its distal end is adjacent the aneurysm; deploying the embolic device through the microcatheter and into the aneurysm so that the embolic device forms a web-like mass in the aneurysm; and transforming the embolic device from its soft, compliant state to its rigid or semi-rigid state. The embolic device is advantageously deployed by releasably attaching it to a flexible, elongate

deployment tube that is passed through the microcatheter, and then detaching the embolic device from the tube when the embolic device is suitably situated.

L10 ANSWER 17 OF 23 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2001:561229 BIOSIS
DOCUMENT NUMBER: PREV200100561229
TITLE: Methods for embolizing a target vascular site.
AUTHOR(S): **Greene, George R., Jr.** [Inventor, Reprint author]; Rosenbluth, Robert F. [Inventor]; **Cox, Brian J.** [Inventor]
CORPORATE SOURCE: Costa Mesa, CA, USA
ASSIGNEE: MicroVention, Inc.
PATENT INFORMATION: US 6299619 20011009
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Oct. 9, 2001) Vol. 1251, No. 2. e-file. CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 5 Dec 2001
Last Updated on STN: 25 Feb 2002

AB An **embolization** device includes a plurality of highly-expansible embolizing elements disposed at spaced intervals along a **filamentous** carrier. In a preferred embodiment, the carrier is a suitable length of very thin, highly flexible **filament** of nickel/titanium alloy. The embolizing elements are separated from each other on the carrier by radiopaque spacers in the form of highly flexible microcoils made of platinum or platinum/tungsten alloy. In a preferred embodiment, the embolizing elements are made of a hydrophilic, macroporous, polymeric, hydrogen foam material. The device is particularly suited for embolizing a vascular site such as an aneurysm. The **embolization** bodies have an initial configuration in the form of small, substantially cylindrical "micropellets" of small enough outside diameter to fit within a microcatheter. The bodies are hydrophilically expansible into an expanded configuration in which they substantially conform to and fill the vascular site while connected to the carrier. A method for embolizing a vascular site using this device includes the steps of: (a) passing a microcatheter intravascularly so that its distal end is in a vascular site; (b) providing a vascular **embolization** device comprising a plurality of highly expansible embolizing elements carried on a **filamentous** carrier and separated from each other on the carrier by microcoil spacers; (c) passing the **embolization** device through the microcatheter so that it emerges from the distal end of the microcatheter into the vascular site; and (d) expanding the embolizing elements in situ substantially to fill the vascular site while retaining the embolizing elements on the carrier. Preferably, the method also includes the step of deploying a vaso-occlusive device in the vascular site, or an intravascular device in a blood vessel adjacent the vascular site, before **embolization** device is passed through the microcatheter.

L10 ANSWER 18 OF 23 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2001:542166 BIOSIS
DOCUMENT NUMBER: PREV200100542166
TITLE: **Filamentous** embolic device with expansible elements.
AUTHOR(S): **Greene, George R., Jr.** [Inventor, Reprint

author]; Rosenbluth, Robert F. [Inventor]; **Cox, Brian J.** [Inventor]
CORPORATE SOURCE: Costa Mesa, CA, USA
ASSIGNEE: MicroVention, Inc.
PATENT INFORMATION: US 6238403 20010529
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (May 29, 2001) Vol. 1246, No. 5. e-file. CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 21 Nov 2001
Last Updated on STN: 25 Feb 2002

AB An **embolization** device includes a plurality of highly-expansible embolizing elements disposed at spaced intervals along a **filamentous** carrier. In a preferred embodiment, the carrier is a suitable length of very thin, highly flexible **filament** of nickel/titanium alloy. The embolizing elements are separated from each other on the carrier by radiopaque spacers in the form of highly flexible microcoils made of platinum or platinum/tungsten alloy. In a preferred embodiment, the embolizing elements are made of a hydrophilic, macroporous, polymeric, hydrogel foam material. The device is particularly suited for embolizing a vascular site such as an aneurysm. The **embolization** bodies have an initial configuration in the form of small, substantially cylindrical "micropellets" of small enough outside diameter to fit within a microcatheter. The bodies are hydrophilically expansible into an expanded configuration in which they substantially conform to and fill the vascular site while connected to the carrier. A method for embolizing a vascular site using this device includes the steps of: (a) passing a microcatheter intravascularly so that its distal end is in a vascular site; (b) providing a vascular **embolization** device comprising a plurality of highly expansible embolizing elements carried on a **filamentous** carrier and separated from each other on the carrier by microcoil spacers; (c) passing the **embolization** device through the microcatheter so that it emerges from the distal end of the microcatheter into the vascular site; and (d) expanding the embolizing elements in situ substantially to fill the vascular site.

L10 ANSWER 19 OF 23 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2001:280800 BIOSIS
DOCUMENT NUMBER: PREV200100280800
TITLE: Vascular **embolization** with an expansible implant.
AUTHOR(S): Greene, George R. [Inventor]; Rosenbluth, Robert F. [Inventor]; **Cox, Brian J.** [Inventor]
CORPORATE SOURCE: ASSIGNEE: MicroVention, Inc.
PATENT INFORMATION: US 6165193 20001226
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Dec. 26, 2000) Vol. 1241, No. 4. e-file. CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 13 Jun 2001
Last Updated on STN: 19 Feb 2002

AB A vascular implant formed of a compressible foam material has a compressed configuration from which it is expansible into a configuration substantially conforming to the shape and size of a vascular site to be embolized. Preferably, the implant is formed of a hydrophilic, macroporous foam material, having an initial configuration of a

scaled-down model of the vascular site, from which it is compressible into the compressed configuration. The implant is made by scanning the vascular site to create a digitized scan data set; using the scan data set to create a three-dimensional digitized virtual model of the vascular site; using the virtual model to create a scaled-down physical mold of the vascular site; and using the mold to create a vascular implant in the form of a scaled-down model of the vascular site. To embolize a vascular site, the implant is compressed and passed through a microcatheter, the distal end of which has been passed into a vascular site. Upon entering the vascular site, the implant expands in situ substantially to fill the vascular site. A retention element is contained within the microcatheter and has a distal end detachably connected to the implant. A flexible, tubular deployment element is used to pass the implant and the retention element through the microcatheter, and then to separate the implant from the retention element when the implant has been passed out of the microcatheter and into the vascular site.

L10 ANSWER 20 OF 23 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2000:332935 BIOSIS
DOCUMENT NUMBER: PREV200000332935
TITLE: Apparatus and method for vascular **embolization.**
AUTHOR(S): Rosenbluth, Robert F. [Inventor, Reprint author]; **Cox, Brian J.** [Inventor]; Greene, George R. [Inventor]
CORPORATE SOURCE: Laguna Niguel, CA, USA
ASSIGNEE: MicroVention, Inc., Aliso Viejo, CA, USA
PATENT INFORMATION: US 6015424 20000118
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Jan. 18, 2000) Vol. 1230, No. 3. e-file. CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 2 Aug 2000
Last Updated on STN: 7 Jan 2002

AB Apparatus for vascular **embolization**, deployable through a microcatheter, includes a flexible, elongate deployment tube dimensioned for insertion through the microcatheter, and a **filamentous** embolic device releasably attached to the distal end of the tube. The embolic device is controllably transformable from a soft, compliant state to a rigid or semi-rigid state. The embolic device may include a polymeric material that is transformable by contact with vascular blood or with a liquid that is cooler than vascular blood, or it may include a metallic material that is transformable by electrolytic corrosion. The embolic device may be a continuous **filamentous** polymeric extrusion; an elongate microcoil filled with polymeric material; an elongate, multi-segmented chain including polymeric interconnecting portions; or an elongate chain of metal segments that are fused together by electrolytic corrosion. An aneurysm is embolized with this apparatus by deploying a microcatheter so that its distal end is adjacent the aneurysm; deploying the embolic device through the microcatheter and into the aneurysm so that the embolic device forms a web-like mass in the aneurysm; and transforming the embolic device from its soft, compliant state to its rigid or semi-rigid state. The embolic device is advantageously deployed by releasably attaching it to a flexible, elongate deployment tube that is passed through the microcatheter, and then detaching the embolic device from the tube when the embolic device is suitably situated.

L10 ANSWER 21 OF 23 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on

STN
ACCESSION NUMBER: 1995:50987 BIOSIS
DOCUMENT NUMBER: PREV199598065287
TITLE: Formation of assembly intermediates from truncated neurofilament proteins and further characterization of heterotetramers.
AUTHOR(S): Ansari, A. [Reprint author]; **Tran, T.**; Haley, D.; Darby, P.; Cohlberg, J. A.
CORPORATE SOURCE: Dep. Chem. and Biochem., Calif. State Univ., Long Beach, CA 90840, USA
SOURCE: Molecular Biology of the Cell, (1994) Vol. 5, No. SUPPL., pp. 51A.
Meeting Info.: Thirty-fourth Annual Meeting of the American Society for Cell Biology. San Francisco, California, USA. December 10-14, 1994.
CODEN: MBCEEV. ISSN: 1059-1524.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
Conference; (Meeting Poster)
LANGUAGE: English
ENTRY DATE: Entered STN: 31 Jan 1995
Last Updated on STN: 31 Jan 1995

L10 ANSWER 22 OF 23 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2002:625674 SCISEARCH
THE GENUINE ARTICLE: 577TM
TITLE: Perplexing papules and plaques
AUTHOR: **Tran T**; Morgan J; Morgan M B (Reprint)
CORPORATE SOURCE: 16124 Chastain Rd, Odessa, FL 33556 USA (Reprint); Univ S Florida, Tampa, FL 33620 USA; Bay Area Dermatopathol, Tampa, FL USA
COUNTRY OF AUTHOR: USA
SOURCE: AMERICAN JOURNAL OF DERMATOPATHOLOGY, (AUG 2002) Vol. 24, No. 4, pp. 374-376.
ISSN: 0193-1091.
PUBLISHER: LIPPINCOTT WILLIAMS & WILKINS, 530 WALNUT ST, PHILADELPHIA, PA 19106-3621 USA.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 3
ENTRY DATE: Entered STN: 16 Aug 2002
Last Updated on STN: 16 Aug 2002
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Dermatologic diseases are capable of presenting in a variety of clinical and pathologic guises. We present the clinicopathologic features of an unusual case misinterpreted initially as a dermal hypersensitivity reaction that was later deemed to be the cholesterol emboli syndrome. Salient histologic features of this case were the presence of numerous dermal eosinophils and the diagnostic finding of an intravascular cholesterol embolus. The presence of dermal eosinophilia should prompt a search for cholesterol emboli in the appropriate context.

L10 ANSWER 23 OF 23 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1995:263238 SCISEARCH
THE GENUINE ARTICLE: QU089
TITLE: NEUROFILAMENT PROTEIN HETEROTETRAMERS AS ASSEMBLY INTERMEDIATES

AUTHOR: COHLBERG J A (Reprint); HAJARIAN H; **TRAN T**; ALIPOURJEDDI P; NOVEEN A
CORPORATE SOURCE: CALIF STATE UNIV LONG BEACH, DEPT CHEM & BIOCHEM, 1250 BELLFLOWER BLVD, LONG BEACH, CA 90840 (Reprint)
COUNTRY OF AUTHOR: USA
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (21 APR 1995) Vol. 270, No. 16, pp. 9334-9339.
ISSN: 0021-9258.
PUBLISHER: AMER SOC BIOCHEMISTRY MOLECULAR BIOLOGY INC, 9650 ROCKVILLE PIKE, BETHESDA, MD 20814.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 55
ENTRY DATE: Entered STN: 1995
Last Updated on STN: 1995
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Evidence is presented for the existence of a soluble heterotetramer containing the low and middle molecular weight neurofilament (NF) proteins, NF-L and NF-M, and one containing the low and high molecular weight proteins, NF-L and NF-H, and for their role in **filament** assembly. When a mixture of either pair of proteins was renatured in 2 M urea, 20 mM Tris, pH 7.2, a new band representing a complex was observed in native gel electrophoresis. No new band was observed with a mixture of NF-M and NF-H. Two-dimensional gel electrophoresis showed that treatment of the complexes with SDS caused them to dissociate into their constituent polypeptide chains. Native neurofilaments dissociated in 2 M urea into a mixture of LM and LH complexes. Titration of NF-L with NF-M indicated that complex formation was complete at an approximately equimolar ratio of the two proteins. The LM complex had a sedimentation coefficient, s(20,w), of 4.4 S, consistent with a tetrameric structure. Dialysis of a solution of the LM complex against 50 mM. 4-morpholineethanesulfonic acid, 0.17 M NaCl, pH 6.25, led to the formation of 10-nm **filaments** in good yield. These results suggest that NF protein heterooligomers are intermediates in NF assembly and disassembly.

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=> => file wpix, japio
FILE 'WPIX' ENTERED AT 09:26:23 ON 15 AUG 2006
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FILE 'JAPIO' ENTERED AT 09:26:23 ON 15 AUG 2006
COPYRIGHT (C) 2006 Japanese Patent Office (JPO)- JAPIO

=> d stat que
L11          38 SEA ("GREENE G"/AU OR "GREENE G R"/AU)
L12          13 SEA ("CRUISE G"/AU OR "CRUISE G M"/AU)
L13          18 SEA "CONSTANT M"/AU
L14         101 SEA ("COX B"/AU OR "COX B J"/AU)
L15           1 SEA "COX BRIAN"/AU
L16         113 SEA "TRAN T"/AU
L17         253 SEA (L11 OR L12 OR L13 OR L14 OR L15 OR L16)
L18          20 SEA L17 AND (FILAMENT? OR EXPANSILE OR EMBOLIZATION)
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Inventor's

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L18  ANSWER 1 OF 20  WPIX  COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER:     2006-492530 [50]   WPIX
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CROSS REFERENCE: 2001-343247 [36]; 2002-691223 [74]; 2003-266113 [26]; 2004-339065 [31]
DOC. NO. NON-CPI: N2006-397580
DOC. NO. CPI: C2006-154124
TITLE: **Embolization** device manufacturing method for treatment of vascular aneurysms, involves coaxially encapsulating portion of length of **filamentous** carrier in **expansile** hydrophilic polymer.
DERWENT CLASS: A32 A96 D22 P31
INVENTOR(S): **CONSTANT, M; COX, B J; CRUISE, G M; GREENE, G R; TRAN, T**
PATENT ASSIGNEE(S): (MICR-N) MICROVENTION INC
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2006149299	A1	20060706	(200650)*		29

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
US 2006149299	A1	CIP of	US 1999-410970	19991004
		CIP of	US 2000-542145	20000404
		CIP of	US 2001-867340	20010529
		Div ex	US 2002-157621	20020529
			US 2006-350357	20060208

FILING DETAILS:

PATENT NO	KIND		PATENT NO
US 2006149299	A1	CIP of	US 6238403
		CIP of	US 6299619
		CIP of	US 6602261
		Div ex	US 7014645

PRIORITY APPLN. INFO: US 2002-157621 20020529; US 1999-410970 19991004; US 2000-542145 20000404; US 2001-867340 20010529; US 2006-350357 20060208
AN 2006-492530 [50] WPIX
CR 2001-343247 [36]; 2002-691223 [74]; 2003-266113 [26]; 2004-339065 [31]
AB US2006149299 A UPAB: 20060804
NOVELTY - The method involves providing elongated flexible **filamentous** carrier, and coaxially encapsulating portion of the length of the carrier in an **expansile** hydrophilic polymer set in softened state.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for method for delivering therapeutic agent to patient.

USE - For manufacturing **embolization** device used for treatment of vascular aneurysms, arteriovenous malformation and arteriovenous fistulas, tumor and other soft tissue voids. The device is also used for occluding body cavity and blood vessel for therapeutic benefit of patient, and fallopian tubes for the purpose of sterilization, and also for occlusive repair of cardiac defects such as patent foramen ovale, patent ductus arteriosis and left-atrial-appendage and

atrial-septal defects.

ADVANTAGE - Vascular **embolization** device can be deployed within cavity or vascular site with excellent locational control and with a lower risk of vascular rupture, tissue damage or migration. The device effects a conformal fit within the site that promotes effective **embolization** of body cavities having different size and configuration.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic view of vascular **embolization** device.

vascular **embolization** device 10
micropellets 12
spacers 16
microcoil segment 18
hydrogel linkage element 24
Dwg.1/44

L18 ANSWER 2 OF 20 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2005-074475 [08] WPIX
CROSS REFERENCE: 2003-479465 [45]
DOC. NO. NON-CPI: N2005-064215
DOC. NO. CPI: C2005-025500
TITLE: Preventing leakage into a perigraft space between endovascular graft and adjacent portion of blood vessel wall, by introducing device comprising **expansile** polymeric material into perigraft space, and allowing polymeric material to expand.
DERWENT CLASS: A96 D22 P32
INVENTOR(S): **COX, B J**; LENKER, J A; ROSENBLUTH, R F
PATENT ASSIGNEE(S): (MICR-N) MICROVENTION INC
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2005004660	A1	20050106	(200508)*		19

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2005004660	A1 Div ex	US 2001-906415	20010716
		US 2003-726135	20031201

PRIORITY APPLN. INFO: US 2001-906415 20010716; US 2003-726135 20031201
AN 2005-074475 [08] WPIX
CR 2003-479465 [45]
AB US2005004660 A UPAB: 20050202

NOVELTY - Preventing leakage into a perigraft space between an endovascular graft and an adjacent portion of blood vessel wall, includes introducing a device comprising **expansile** polymeric material in non-expanded state through a cannula and into the perigraft space, and allowing the polymeric material to expand to its expanded stated within the perigraft space so that the device fills the perigraft space.

DETAILED DESCRIPTION - Preventing leakage into a perigraft space between an endovascular graft that has been implanted in the lumen of blood vessel of human or veterinary patient and an adjacent portion of blood vessel wall, includes providing a device having a solid member

comprising **expansile** polymeric material (30) that is initially in a non-expanded state (where a quantity of polymeric material occupies a first volume) and is subsequently expandable to an expanded state (where the quantity of polymeric material occupies a second volume larger than the first volume and absorbs blood); inserting a cannula (22B) into a perigraft space between the endovascular graft and blood vessel wall; introducing the device through the cannula and into the perigraft space while the **expansile** polymeric material is in its non-expanded state; and allowing the polymeric material to expand to its expanded stated within the perigraft space so that the device fills the perigraft space.

USE - The method is used for preventing leakage into a perigraft space between an endovascular graft and an adjacent portion of blood vessel wall. It may be performed after an endoleak has been detected for treating the endoleak and/or before an endoleak has been detected for preventing an endoleak from occurring (claimed).

ADVANTAGE - The expanded mass of polymeric material in the perigraft space prevents additional blood from leaking or flowing into such perigraft space.

DESCRIPTION OF DRAWING(S) - The figure is a diagram showing a method of treating endoleak.

Cannula 22B

Expansile polymeric material 30

Infrarenal aorta A

Abdominal aortic aneurysm AN

Dwg.3/7

L18 ANSWER 3 OF 20 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2004-728044 [71] WPIX

CROSS REFERENCE: 2002-394528 [42]; 2003-311315 [30]

DOC. NO. NON-CPI: N2004-576592

DOC. NO. CPI: C2004-255812

TITLE: Deployment mechanism to deploy **filamentous** endovascular device in vascular site, has coupling element releasably held in non-fluidtight engagement in retention sleeve near distal end of deployment tube to be separable from the sleeve.

DERWENT CLASS: A96 P31 S05

INVENTOR(S): **COX, B**; FITZ, M; LEI, C L; SCHAEFER, D

PATENT ASSIGNEE(S): (COXB-I) COX B; (FITZ-I) FITZ M; (LEIC-I) LEI C L; (MICR-N) MICROVENTION INC

COUNTRY COUNT: 108

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2004204701	A1	20041014	(200471)*		22
WO 2005077281	A1	20050825	(200556)	EN	

RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2004204701	A1 CIP of	US 2000-692248	20001018
	CIP of	US 2002-143724	20020510
		US 2004-774299	20040206
WO 2005077281	A1	WO 2005-US1930	20050121

FILING DETAILS:

PATENT NO	KIND	PATENT NO
US 2004204701	A1 CIP of	US 6607538
	CIP of	US 6689141

PRIORITY APPLN. INFO: US 2004-774299 20040206; US 2000-692248 20001018; US 2002-143724 20020510

AN 2004-728044 [71] WPIX

CR 2002-394528 [42]; 2003-311315 [30]

AB US2004204701 A UPAB: 20050902

NOVELTY - A deployment mechanism comprises a coupling element attached to a proximal end of an endovascular device and releasably held in a non-fluidtight engagement within a retention sleeve near the distal end of a deployment tube to be separable from the retention sleeve in response to fluid pressure applied to the coupling element through the lumen and the distal end of the deployment tube.

DETAILED DESCRIPTION - A deployment mechanism for deploying a **filamentous** endovascular device (16) having a proximal end, comprises an elongate, flexible, hollow deployment tube having an open proximal end, a distal section (10c) terminating in an open distal end, and a lumen defined between the proximal and distal ends; a retention sleeve (12) fixed to the distal section of the deployment tube and extending a short distance distally past the distal end of the deployment tube; and a coupling element (14) attached to the proximal end of the endovascular device and releasably held in a non-fluidtight engagement within the retention sleeve near the distal end of the deployment tube to be separable from the retention sleeve in response to fluid pressure applied to the coupling element through the lumen and the distal end of the deployment tube.

USE - For deployment of a **filamentous** endovascular device, e.g. embolic implant such as microcoil (24) in targeted vascular site by purging air from the lumen, introducing the endovascular device to the vascular site, and injecting a liquid into the proximal end of the lumen at at least 30 kg/cm2 (claimed).

ADVANTAGE - The coupling mechanism provides a secure attachment of the embolic implant to a deployment instrument during the deployment, while allowing for the easy and reliable detachment of the embolic implant once it is properly situated with respect to the target site. It allows improved control of the implant during deployment and allows the implant to be easily repositioned before detachment. It is readily adapted for use with a wide variety of endovascular devices, without adding to the cost.

DESCRIPTION OF DRAWING(S) - The figure shows a longitudinal cross-sectional view of the deployment mechanism.

Distal section 10c

Retention sleeve 12

Coupling element 14

Endovascular device 16

Microcoil 24

Liquid 30

Dwg.4/26

L18 ANSWER 4 OF 20 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2004-339065 [31] WPIX
CROSS REFERENCE: 2001-343247 [36]; 2002-691223 [74]; 2003-266113 [26]; 2006-492530 [50]
DOC. NO. NON-CPI: N2004-271032
DOC. NO. CPI: C2004-128684
TITLE: Manufacture of body cavity occlusion device for delivering therapeutic agent to patient involves coaxially encapsulating portion of carrier in expansible, hydrophilic polymer.
DERWENT CLASS: A96 B07 D22 P34
INVENTOR(S): **CONSTANT, M; COX, B J; CRUISE, G M; GREENE, G R; TRAN, T**
PATENT ASSIGNEE(S): (CONS-I) CONSTANT M; (COXB-I) COX B J; (CRUI-I) CRUISE G M; (GREE-I) GREENE G R; (TRAN-I) TRAN T
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2004059370	A1	20040325	(200431)*		29

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
US 2004059370	A1	CIP of	US 1999-410970	19991004
		CIP of	US 2000-542145	20000404
		CIP of	US 2001-867340	20010529
		Cont of	US 2002-157621	20020529
			US 2003-670142	20030924

FILING DETAILS:

PATENT NO	KIND		PATENT NO
US 2004059370	A1	CIP of	US 6238403
		CIP of	US 6299619
		CIP of	US 6602261

PRIORITY APPLN. INFO: US 2002-157621 20020529; US 1999-410970 19991004; US 2000-542145 20000404; US 2001-867340 20010529; US 2003-670142 20030924
AN 2004-339065 [31] WPIX
CR 2001-343247 [36]; 2002-691223 [74]; 2003-266113 [26]; 2006-492530 [50]
AB US2004059370 A UPAB: 20060804
NOVELTY - A body cavity occlusion device (10) is manufactured by providing an elongated, flexible, **filamentous** carrier; and coaxially encapsulating a portion of the length of the carrier in an expansible, hydrophilic polymer.
USE - The invention is used for manufacture of body cavity occlusion device for delivering a therapeutic agent to a patient by disposing the agent in the axial reservoir of the device; and embolizing a body cavity of the patient with the device (claimed).
ADVANTAGE - The invented method can fill aneurysms and other body

cavities of a target range of sizes, configurations and neck widths with an occlusive and/or thrombogenic medium with a minimal risk of inadvertent tissue damage, aneurysm rupture or blood vessel wall damage. It also allows for the precise locational deployment of the medium while minimizing the potential for migration away from the target location.

DESCRIPTION OF DRAWING(S) - The figure is an elevational view of a vascular **embolization** device.

Device(12) Micropellet 10
Spacers 16
Segment 18
Retention member 20
Dwg.1/43

L18 ANSWER 5 OF 20 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2004-225901 [21] WPIX
CROSS REFERENCE: 2002-643005 [69]; 2003-229183 [22]; 2003-625320 [59]
DOC. NO. NON-CPI: N2004-178545
TITLE: Micro coil vaso-occlusive device for closing blood vessel by embolizing targeted site in blood vessel, has micro coil formed into minimum energy state secondary configuration that has curved segments or circular loops defining multiple axes.
DERWENT CLASS: P32
INVENTOR(S): ALMAZAN, H; **COX, B J**; FERRERA, D A; **GREENE, G R**; SCHAEFER, D
PATENT ASSIGNEE(S): (ALMA-I) ALMAZAN H; (COXB-I) COX B J; (FERR-I) FERRERA D A; (GREE-I) GREENE G R; (SCHA-I) SCHAEFER D
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2004045554	A1	20040311	(200421)*		9

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2004045554	A1 Cont of	US 2000-671021	20000926
		US 2003-638813	20030811

FILING DETAILS:

PATENT NO	KIND	PATENT NO
US 2004045554	A1 Cont of	US 6605101

PRIORITY APPLN. INFO: US 2000-671021 20000926; US 2003-638813 20030811
AN 2004-225901 [21] WPIX
CR 2002-643005 [69]; 2003-229183 [22]; 2003-625320 [59]
AB US2004045554 A UPAB: 20040326
NOVELTY - The device (10) has a micro coil formed into a minimum energy state secondary configuration comprising of several curved segments or circular loops (14a,14b) defining multiple axes (16).

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for embolizing an aneurysm using the micro coil vaso-occlusive device.

USE - For occluding blood vessel by embolizing a targeted site, e.g. aneurysm, in the blood vessel

ADVANTAGE - Provides a micro coil vaso-occlusive device with a minimum energy state secondary configuration that is not conducive to coin-stacking, thereby minimizing the degree of compaction that is experienced. Engages the surrounding aneurysm wall surface, thereby minimizing shifting or tumbling due to blood flow dynamics. Ensures increased coverage of aneurysm neck due to presence of loops across the neck, and yet the probability of any part of the device intruding into the parent artery is reduced. Provides smoother deployment and exhibits greater resistance to coil compaction, thereby increasing positional stability in the face of pulsatile blood flow. Achieves stability with lower overall friction between the device and the aneurysm wall. Includes random distribution of loops throughout the aneurysm that allows the device to maintain a complex shape inside the aneurysm, yielding improved **embolization.**

DESCRIPTION OF DRAWING(S) - The figure shows the perspective view of the micro coil vaso-occlusive device.

Micro coil vaso-occlusive device 10

Curved segments or circular loops 14a,14b

Multiple axes 16

Dwg.1/7

L18 ANSWER 6 OF 20 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2004-088970 [09] WPIX

DOC. NO. NON-CPI: N2004-071213

DOC. NO. CPI: C2004-036288

TITLE: **Embolization** device for repairing vascular dysfunction, comprising resilient material thread, and surface irregularities formed on surface of material thread.

DERWENT CLASS: A96 B04 D22 P31 P34

INVENTOR(S): **COX, B J**; FERRERA, D; GREENC, G R; GREEN, G R

PATENT ASSIGNEE(S): (COXB-I) COX B J; (FERR-I) FERRERA D; (GREE-I) GREENC G R; (MICR-N) MICROVENTION INC

COUNTRY COUNT: 104

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2003199887	A1	20031023	(200409)*		13
WO 2003090837	A1	20031106	(200409)	EN	
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
AU 2003230791	A1	20031110	(200442)		
EP 1501580	A1	20050202	(200510)	EN	
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2003199887	A1	US 2002-128917	20020423
WO 2003090837	A1	WO 2003-US10178	20030402
AU 2003230791	A1	AU 2003-230791	20030402

EP 1501580	A1	EP 2003-723886	20030402
		WO 2003-US10178	20030402

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003230791	A1 Based on	WO 2003090837
EP 1501580	A1 Based on	WO 2003090837

PRIORITY APPLN. INFO: US 2002-128917 20020423

AN 2004-088970 [09] WPIX

AB US2003199887 A UPAB: 20040205

NOVELTY - An **embolization** device (22) comprises a resilient material thread having a first relaxed shape forming a space-filling body, and a second stretched shape forming a linear body, and at least one surface irregularity formed on surface of the material thread.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of repairing vascular dysfunction by accessing site of vascular dysfunction in vivo, delivering **embolization** device into the vascular dysfunction, and promoting tissue in-growth with the **embolization** device.

USE - For repairing vascular dysfunction, e.g. vascular aneurysm (10), or imparting therapeutic effect on tissue in vivo.

ADVANTAGE - The device enables a user to treat aneurysm formed through the patient's body from a remote location.

DESCRIPTION OF DRAWING(S) - The figure is a perspective view of a porous **embolization** device.

Aneurysm 10

Neck portion 12

Blood vessel 14

Delivery device 20

Embolization device 22

Dwg.2/15

L18 ANSWER 7 OF 20 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2003-479465 [45] WPIX

CROSS REFERENCE: 2005-074475 [08]

DOC. NO. NON-CPI: N2003-381097

DOC. NO. CPI: C2003-128073

TITLE: Method for preventing leakage into perigraft space, by providing **expansile** polymeric material to absorb blood, inserting cannula and allowing polymeric material to expand to its expanded state to fill perigraft space.

DERWENT CLASS: A96 B07 C07 D22 P31 P32 P34

INVENTOR(S): **COX, B J**; LENKER, J A; ROSENBLUTH, R F

PATENT ASSIGNEE(S): (MICR-N) MICROVENTION INC

COUNTRY COUNT: 101

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2003014075	A1	20030116	(200345)*		20
WO 2003007785	A2	20030130	(200345)	EN	

RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR

KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT
RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW
EP 1416859 A2 20040512 (200431) EN
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC
MK NL PT RO SE SI SK TR
AU 2002318325 A1 20030303 (200452)
JP 2004537353 W 20041216 (200482) 68
AU 2002318325 A8 20051027 (200624)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2003014075	A1	US 2001-906415	20010716
WO 2003007785	A2	WO 2002-US22242	20020712
EP 1416859	A2	EP 2002-748152	20020712
		WO 2002-US22242	20020712
AU 2002318325	A1	AU 2002-318325	20020712
JP 2004537353	W	WO 2002-US22242	20020712
		JP 2003-513399	20020712
AU 2002318325	A8	AU 2002-318325	20020712

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1416859	A2 Based on	WO 2003007785
AU 2002318325	A1 Based on	WO 2003007785
JP 2004537353	W Based on	WO 2003007785
AU 2002318325	A8 Based on	WO 2003007785

PRIORITY APPLN. INFO: US 2001-906415 20010716
AN 2003-479465 [45] WPIX
CR 2005-074475 [08]
AB US2003014075 A UPAB: 20060410
NOVELTY - Method for preventing leakage into perigraft space, involves providing **expansile** polymeric material (EPM) to absorb blood, inserting cannula, introducing EPM in non-expanded state through cannula and allowing EPM to expand to its expanded state to fill perigraft space. EPM which is initially in non-expanded state occupies volume-I and then expands to expanded state and occupies volume-II.

DETAILED DESCRIPTION - A method for preventing leakage into a perigraft space between an endovascular graft (10) that has been implanted in the lumen of a blood vessel and an adjacent portion of the blood vessel wall, involves providing an **expansile** polymeric material (EPM) to absorb blood, inserting a cannula (22) into a perigraft space between the endovascular graft and the blood vessel wall, introducing the EPM in non-expanded state through the cannula and into the perigraft space and allowing EPM to expand to expanded stated within the perigraft space for substantially filling the perigraft space. EPM which is initially in a non-expanded state occupies a volume-I and expands to an expanded state and occupies a volume-II larger than the volume-I.

An INDEPENDENT CLAIM is included for a system for preventing or treating endoleaks.

USE - For treating or preventing endoleaks after an endovascular graft.

ADVANTAGE - The expanded mass of polymeric material in the perigraft space prevents additional blood from leaking or flowing into perigraft space. The expanded and/or cured states of the **expansile**

material in perigraft space allows the permeation of blood or blood fluid, promotes cellular growth and post implantation biological processes.

DESCRIPTION OF DRAWING(S) - The figure shows the method for treating an endoleak that has occurred in a bifurcated aorto-illiac endovascular graft.

endovascular graft 10
cannula 22
Dwg.1D/7

L18 ANSWER 8 OF 20 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2003-311315 [30] WPIX
CROSS REFERENCE: 2002-394528 [42]; 2004-728044 [71]
DOC. NO. NON-CPI: N2003-247777
DOC. NO. CPI: C2003-081528
TITLE: Deployment device for endovascular implant e.g. microcoil, comprises flexible, hollow deployment tube, retention sleeve, and coupling element.
DERWENT CLASS: B07 D22 P31 P32 P34
INVENTOR(S): **COX, B**; FERRERA, D A; **GREENE, G R**; ROSENBKUTH, R F; FITZ, M; LEI, C L; **COX, B J**; ROSENBLUTH, R F
PATENT ASSIGNEE(S): (MICR-N) MICROVENTION INC; (COXB-I) COX B J; (FERR-I) FERRERA D A; (GREE-I) GREENE G R; (ROSE-I) ROSENBLUTH R F
COUNTRY COUNT: 104
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2002188311	A1	20021212	(200330)*		20
WO 2003094751	A1	20031120	(200403)	EN	
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT SD SE SI SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW					
US 6689141	B2	20040210	(200413)		
AU 2003233511	A1	20031111	(200442)		
EP 1513461	A1	20050316	(200519)	EN	
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR					
JP 2005524479	W	20050818	(200555)		22
CN 1652726	A	20050810	(200572)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2002188311	A1 CIP of	US 2000-692248	20001018
		US 2002-143724	20020510
WO 2003094751	A1	WO 2003-US14580	20030508
US 6689141	B2 CIP of	US 2000-692248	20001018
		US 2002-143724	20020510
AU 2003233511	A1	AU 2003-233511	20030508
EP 1513461	A1	EP 2003-728788	20030508
		WO 2003-US14580	20030508
JP 2005524479	W	WO 2003-US14580	20030508
		JP 2004-502847	20030508

CN 1652726	A	CN 2003-810602	20030508

FILING DETAILS:

PATENT NO	KIND	PATENT NO
US 6689141	B2 CIP of	US 6607538
AU 2003233511	A1 Based on	WO 2003094751
EP 1513461	A1 Based on	WO 2003094751
JP 2005524479	W Based on	WO 2003094751

PRIORITY APPLN. INFO: US 2002-143724 20020510; US 2000-692248 20001018

AN 2003-311315 [30] WPIX

CR 2002-394528 [42]; 2004-728044 [71]

AB US2002188311 A UPAB: 20051109

NOVELTY - A deployment device comprises flexible, hollow deployment tube, retention sleeve, and coupling element. The deployment tube has an open proximal end, and a lumen. The retention sleeve is fixed around the distal section of the deployment tube. The coupling element is formed with purge passage that is designed to provide restriction to the flow of the fluid.

DETAILED DESCRIPTION - A deployment device comprises flexible, hollow deployment tube, retention sleeve (12), and coupling element (14). The deployment tube has open proximal end, distal section, and a lumen between the proximal and distal ends. The retention sleeve is fixed around the distal section of the deployment tube. The coupling element is attached to the proximal end of the endovascular device and is releasably held within the distal extension of the retention sleeve such that it can be displaceable from the retention sleeve in response to fluid pressure applied to the coupling element through the lumen and the distal end of the deployment tube. The coupling element is formed with purge passage (72) that is dimensioned so as to provide restriction to the flow of the fluid having a viscosity that is greater than that of the saline solution.

An INDEPENDENT CLAIM is also included for a method of deploying a **filamentous** endovascular device into a target vascular site comprising purging air from the lumen by injecting saline solution through the lumen with a pressure enough to displace air from the lumen through the purge passage but not enough to separate the endovascular device from the deployment tube. The endovascular device is introduced intravascularly to the target vascular site while it is attached to the deployment tube. A liquid through the lumen is injected under pressure to separate the endovascular device from the deployment tube in response to the liquid pressure applied to the coupling element through the open distal end of the deployment tube.

USE - For deploying endovascular implant (16), such as microcoil (24), into a targeted vascular site.

ADVANTAGE - The inventive device allows for easy and reliable detachment of the embolic implant once it is properly situated with respect to the target site. It has improved control of implant during deployment. It allows the implant to be easily repositioned before detachment.

DESCRIPTION OF DRAWING(S) - The drawing shows a cross-sectional view of the inventive deployment device.

Retention sleeve 12

Coupling element 14

Endovascular implant 16

Microcoil 24

Purge passage 72

Dwg.17/22

L18 ANSWER 9 OF 20 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2003-266113 [26] WPIX
CROSS REFERENCE: 2001-343247 [36]; 2002-691223 [74]; 2004-339065 [31]; 2006-492530 [50]
DOC. NO. NON-CPI: N2003-211320
TITLE: Vascular **embolization** device manufacturing method involves coaxially encapsulating **filamentous** carrier in **expansile**, hydrophilic polymer.
DERWENT CLASS: P31 P32
INVENTOR(S): **CONSTANT, M; COX, B J; CRUISE, G M; GREENE, G R; TRAN, T**
PATENT ASSIGNEE(S): (MICR-N) MICROVENTION INC; (CONS-I) CONSTANT M; (COXB-I) COX B J; (CRUI-I) CRUISE G M; (GREE-I) GREENE G R; (TRAN-I) TRAN T
COUNTRY COUNT: 101
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2002177855	A1	20021128	(200326)*		29
WO 2002096302	A1	20021205	(200326)	EN	
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW					
EP 1401338	A1	20040331	(200424)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					
AU 2002344223	A1	20021209	(200452)		
JP 2004527342	W	20040909	(200459)		93
US 7014645	B2	20060321	(200621)		

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
US 2002177855	A1	CIP of	US 1999-410970	19991004
		CIP of	US 2000-542145	20000404
		CIP of	US 2001-867340	20010529
			US 2002-157621	20020529
WO 2002096302	A1		WO 2002-US16873	20020529
EP 1401338	A1		EP 2002-752008	20020529
			WO 2002-US16873	20020529
AU 2002344223	A1		AU 2002-344223	20020529
JP 2004527342	W		JP 2002-592820	20020529
			WO 2002-US16873	20020529
US 7014645	B2	CIP of	US 1999-410970	19991004
		CIP of	US 2000-542145	20000404
		CIP of	US 2001-867340	20010529
			US 2002-157621	20020529

FILING DETAILS:

PATENT NO	KIND	PATENT NO

US 2002177855	A1	CIP of	US 6238403
		CIP of	US 6299619
EP 1401338	A1	Based on	WO 2002096302
AU 2002344223	A1	Based on	WO 2002096302
JP 2004527342	W	Based on	WO 2002096302
US 7014645	B2	CIP of	US 6238403
		CIP of	US 6299619
		CIP of	US 6602261

PRIORITY APPLN. INFO: US 2002-157621 20020529; US 1999-410970 19991004; US 2000-542145 20000404; US 2001-867340 20010529

AN 2003-266113 [26] WPIX

CR 2001-343247 [36]; 2002-691223 [74]; 2004-339065 [31]; 2006-492530 [50]

AB US2002177855 A UPAB: 20060804

NOVELTY - The carrier made of thin **filament** of a suitable polymer is coaxially encapsulated in **expansile**, hydrophilic polymer such as polyvinyl alcohol (PVA).

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) method for delivering therapeutic agent to patient; and

(2) **embolization** device.

USE - For manufacturing vascular **embolization** device (claimed) used in **embolization** of vascular aneurysms, during treatment of vascular anomalies, such as arteriovenous malformations and arteriovenous fistulas. Also, used for occlusion of fallopian tubes for sterilization, treating cardiac defects like foramen ovale, ductus arteriosis, left-atrial-appendage and atrial-septal defects.

ADVANTAGE - The **embolization** device can be placed within the cavity with excellent locational control, lower risk of vascular rupture, tissue damage. Embolizes body cavities having a wide variety of sizes, configurations and neck widths.

Dwg.0/44

L18 ANSWER 10 OF 20 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2003-229183 [22] WPIX

CROSS REFERENCE: 2002-643005 [69]; 2003-625320 [59]; 2004-225901 [21]

DOC. NO. NON-CPI: N2003-182422

TITLE: Microcoil vaso-occlusive device for embolizing vascular site, has microcoil formed into minimum energy state secondary configuration, forming curved segments and having predetermined overall length.

DERWENT CLASS: P31 P34

INVENTOR(S): **COX, B J**; FERRERA, D A; FITZ, M; **GREENE, G R**; ROSENBLUTH, R F; SCHAEFER, D

PATENT ASSIGNEE(S): (COXB-I) COX B J; (FERR-I) FERRERA D A; (FITZ-I) FITZ M; (GREE-I) GREENE G R; (ROSE-I) ROSENBLUTH R F; (SCHA-I) SCHAEFER D; (MICR-N) MICROVENTION INC

COUNTRY COUNT: 106

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2003018356	A1	20030123	(200322)*		14
WO 2004026149	A1	20040401	(200431)	EN	

RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK

DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH
PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG UZ VC VN
YU ZA ZM ZW

AU 2003267287 A1 20040408 (200462)
EP 1542599 A1 20050622 (200541) EN
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV
MC MK NL PT RO SE SI SK TR
JP 2006500108 W 20060105 (200603) 19
CN 1681440 A 20051012 (200612)
US 7029486 B2 20060418 (200627)

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
US 2003018356	A1	CIP of	US 2000-671021	20000926
		CIP of	US 2002-43947	20020111
			US 2002-247231	20020919
WO 2004026149	A1		WO 2003-US29394	20030917
AU 2003267287	A1		AU 2003-267287	20030917
EP 1542599	A1		EP 2003-749761	20030917
			WO 2003-US29394	20030917
JP 2006500108	W		WO 2003-US29394	20030917
			JP 2004-537987	20030917
CN 1681440	A		CN 2003-822390	20030917
US 7029486	B2	CIP of	US 2000-671021	20000926
		CIP of	US 2002-43947	20020111
			US 2002-247231	20020919

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2003267287	A1	Based on	WO 2004026149
EP 1542599	A1	Based on	WO 2004026149
JP 2006500108	W	Based on	WO 2004026149
US 7029486	B2	CIP of	US 6605101

PRIORITY APPLN. INFO: US 2002-247231 20020919; US
2000-671021 20000926; US
2002-43947 20020111

AN 2003-229183 [22] WPIX
CR 2002-643005 [69]; 2003-625320 [59]; 2004-225901 [21]
AB US2003018356 A UPAB: 20060426
NOVELTY - The device (10) has a **filamentous** microcoil formed into a minimum energy state secondary configuration having curved segments. Each of the curved segment has a diameter equal to the know maximum diameter of the vascular site. At its minimum energy state secondary configuration, the microcoil has an overall length at least twice the know maximum length of the vascular site.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for the vascular site embolizing method.

USE - For embolizing vascular site having know maximum dimension.

ADVANTAGE - Ensures reliable treatment of aneurysms of varying sizes. Ensures compatible use of device with existing guidewire and microcatheter microcoil delivery mechanism. Suppresses increase in manufacturing cost of device. Minimizes shifting or tumbling of device when engaged with aneurysm.

DESCRIPTION OF DRAWING(S) - The figure shows the isometric view of the vaso-occlusive device.

Microcoil vaso-occlusive device 10

Dwg.1/17

L18 ANSWER 11 OF 20 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2003-138431 [13] WPIX
DOC. NO. CPI: C2003-035151
TITLE: Treatment of disease, deformation or disorder of human or veterinary patient, involves irradiating polymer to cause crosslinking of polymer, and introducing crosslinked polymer into or onto patient's body.
DERWENT CLASS: A96 D22 P34
INVENTOR(S): **CRUISE, G M**
PATENT ASSIGNEE(S): (MICR-N) MICROVENTION INC
COUNTRY COUNT: 101
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2002111392	A1	20020815	(200313)*		6
WO 2002064189	A2	20020822	(200313)	EN	
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW					
US 6537569	B2	20030325	(200325)		
EP 1365704	A2	20031203	(200380)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					
BR 2002007249	A	20040309	(200420)		
AU 2002253939	A1	20020828	(200427)		
JP 2004520134	W	20040708	(200445)		30
CN 1496241	A	20040512	(200452)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2002111392	A1	US 2001-783762	20010214
WO 2002064189	A2	WO 2002-US4166	20020213
US 6537569	B2	US 2001-783762	20010214
EP 1365704	A2	EP 2002-723139	20020213
		WO 2002-US4166	20020213
BR 2002007249	A	BR 2002-7249	20020213
		WO 2002-US4166	20020213
AU 2002253939	A1	AU 2002-253939	20020213
JP 2004520134	W	JP 2002-563981	20020213
		WO 2002-US4166	20020213
CN 1496241	A	CN 2002-804996	20020213

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1365704	A2 Based on	WO 2002064189
BR 2002007249	A Based on	WO 2002064189

AU 2002253939 A1 Based on WO 2002064189
JP 2004520134 W Based on WO 2002064189

PRIORITY APPLN. INFO: US 2001-783762 20010214
AN 2003-138431 [13] WPIX
AB US2002111392 A UPAB: 20030224
NOVELTY - A disease, deformation or disorder of a human or veterinary patient is treated by providing a biocompatible, hydrophilic polymer; irradiating the polymer to cause crosslinking of the polymer; and introducing the crosslinked polymer into or onto the patient's body.
USE - For the treatment of disease, deformation or disorder of human or veterinary patient, (particularly for hemostasis, tissue augmentation, tissue engineering, **embolization** of blood vessel or other anatomical conduit having a lumen, absorbing body fluid, or closure of vascular punctures or wounds (all claimed)).
ADVANTAGE - The inventive method can treat disease, deformation or disorder of human or veterinary patient. The polymers used are able to absorb and hold water. The materials used are biodegradable under physiological conditions.
Dwg.0/0

L18 ANSWER 12 OF 20 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2002-691223 [74] WPIX
CROSS REFERENCE: 2001-343247 [36]; 2003-266113 [26]; 2004-339065 [31]; 2006-492530 [50]
DOC. NO. NON-CPI: N2002-545343
TITLE: Vascular **embolization** device has micropellets fixed at spaced intervals to exterior surface of carrier along substantial portion of length of carrier proximally from distal tip.
DERWENT CLASS: P31 P32
INVENTOR(S): **CONSTANT, M; COX, B J; CRUISE, G M; GREENE, G R; TRAN, T**
PATENT ASSIGNEE(S): (MICR-N) MICROVENTION INC; (CONS-I) CONSTANT M; (COXB-I) COX B J; (CRUI-I) CRUISE G M; (GREE-I) GREENE G R; (TRAN-I) TRAN T
COUNTRY COUNT: 3
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2002120276	A1	20020829	(200274)*		19
US 6602261	B2	20030805	(200353)		
AU 2002344223	A1	20021209	(200452)		
JP 2004527342	W	20040909	(200459)		93

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
US 2002120276	A1	CIP of	US 1999-410970	19991004
		CIP of	US 2000-542145	20000404
			US 2001-867340	20010529
US 6602261	B2	CIP of	US 1999-410970	19991004
		CIP of	US 2000-542145	20000404
			US 2001-867340	20010529
AU 2002344223	A1		AU 2002-344223	20020529
JP 2004527342	W		JP 2002-592820	20020529
			WO 2002-US16873	20020529

FILING DETAILS:

PATENT NO	KIND	PATENT NO
US 2002120276	A1 CIP of	US 6238403
US 6602261	B2 CIP of	US 6238403
	CIP of	US 6299619
AU 2002344223	A1 Based on	WO 2002096302
JP 2004527342	W Based on	WO 2002096302

PRIORITY APPLN. INFO: US 2001-867340 20010529; US
1999-410970 19991004; US
2000-542145 20000404; US
2002-157621 20020529

AN 2002-691223 [74] WPIX
CR 2001-343247 [36]; 2003-266113 [26]; 2004-339065 [31]; 2006-492530 [50]
AB US2002120276 A UPAB: 20060804
NOVELTY - The device (10) includes a flexible, **filamentous** carrier having a distal tip and an exterior surface. Elongated continuous, coaxial micropellets (12) are fixed at spaced intervals to the exterior surface of the carrier along a substantial portion of the length of the carrier proximally from the distal tip.

USE - For embolizing vascular aneurysms and similar vascular abnormalities. Used for controlling vascular bleeding to occlude blood supply to tumors.

ADVANTAGE - Provides a vascular **embolization** device which effects a conformal fit within the site that promotes effective **embolization.** Facilitates precise and highly controllable deployment of the vascular **embolization** device. Effectively embolizes vascular sites having a wide variety of sizes, configurations and neck widths.

DESCRIPTION OF DRAWING(S) - The figure shows the elevational view of the vascular **embolization** device.

Vascular **embolization** device 10
Micropellets 12
Dwg.1/23

L18 ANSWER 13 OF 20 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2002-643656 [69] WPIX
DOC. NO. NON-CPI: N2002-508747
TITLE: Preparation of environmentally-sensitive hydrogel polymer by allowing monomer and/or prepolymer to be crosslinked with crosslinker to form hydrogel, and treating hydrogel to render it environmentally sensitive.
DERWENT CLASS: A96 B07 C07 D22 P32
INVENTOR(S): CONSTANT, M J; **CRUISE, G M**
PATENT ASSIGNEE(S): (MICR-N) MICRO VENTION INC; (MICR-N) MICROVENTION INC
COUNTRY COUNT: 101
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2002071994	A1	20020919	(200269)*	EN	22

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT

RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW
US 2002176880 A1 20021128 (200281)
EP 1372553 A1 20040102 (200409) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR
BR 2002008034 A 20040225 (200416)
AU 2002306605 A1 20020924 (200433)
JP 2004528880 W 20040924 (200463) 36
US 6878384 B2 20050412 (200525)
CN 1617694 A 20050518 (200558)
US 2005196426 A1 20050908 (200559)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002071994	A1	WO 2002-US5988	20020228
US 2002176880	A1	US 2001-804935	20010313
EP 1372553	A1	EP 2002-750563	20020228
		WO 2002-US5988	20020228
BR 2002008034	A	BR 2002-8034	20020228
		WO 2002-US5988	20020228
AU 2002306605	A1	AU 2002-306605	20020228
JP 2004528880	W	JP 2002-570954	20020228
		WO 2002-US5988	20020228
US 6878384	B2	US 2001-804935	20010313
CN 1617694	A	CN 2002-806384	20020228
US 2005196426	A1 Cont of	US 2001-804935	20010313
		US 2005-90806	20050324

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1372553	A1 Based on	WO 2002071994
BR 2002008034	A Based on	WO 2002071994
AU 2002306605	A1 Based on	WO 2002071994
JP 2004528880	W Based on	WO 2002071994
US 2005196426	A1 Cont of	US 6878384

PRIORITY APPLN. INFO: US 2001-804935 20010313; US 2005-90806 20050324

AN 2002-643656 [69] WPIX

AB WO 200271994 A UPAB: 20021209

NOVELTY - An environmentally-sensitive hydrogel polymer is prepared by forming a reaction mixture containing an environmentally sensitive monomer and/or prepolymer, a crosslinker, and an initiator; crosslinking the monomer and/or prepolymer with the crosslinker to form a hydrogel that will expand when immersed in an aqueous liquid; and treating the hydrogel to render it environmentally sensitive.

DETAILED DESCRIPTION - A method of preparing an environmentally-sensitive hydrogel polymer, comprising (a) forming a reaction mixture containing (i) an environmentally sensitive monomer and/or prepolymer, (ii) a crosslinker, and (iii) an initiator; (b) allowing the monomer and/or prepolymer to become crosslinked by the crosslinker to form a hydrogel that will expand when immersed in an aqueous liquid; and (c) treating the hydrogel to render it environmentally sensitive such that the environment in which the hydrogel resides affects the rate at which the hydrogel expands.

An INDEPENDENT CLAIM is included for a method of treating a disease, deformation or disorder of a human or veterinary patient by implantation of the hydrogel polymer at an implantation site within a patient's body, comprising (a) providing an amount of the hydrogel polymer that (i) occupies a first volume prior to implantation at the site and (ii) expands to a second volume, larger than the first volume, in response to an environmental condition that is present at the site; and (b) introducing the hydrogel polymer into the site such that it becomes exposed to the environmental condition present at the site and, in response to the environmental condition expands to the second volume.

USE - The inventive method is used in preparing an environmentally-sensitive hydrogel polymer (claimed). The hydrogel polymer is used for biomedical applications (e.g., for treating aneurysms, fistulae, arterio-venous malformations, and for the immobilization or occlusion of blood vessels or other luminal anatomical structures).

ADVANTAGE - The inventive method produces hydrogels that exhibit controlled rates of expansion in response to changes in their environment.

DESCRIPTION OF DRAWING(S) - The figure is a flow diagram of a method of preparing an environmentally-responsive hydrogels.

Dwg.1/2

L18 ANSWER 14 OF 20 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2002-643005 [69] WPIX
CROSS REFERENCE: 2003-229183 [22]; 2003-625320 [59]; 2004-225901 [21]
DOC. NO. NON-CPI: N2002-508325
TITLE: Microcoil vaso-occlusive device has **filamentous** structure formed into minimum energy state secondary configuration and with multiple curved segments individually provided with discrete axis.
DERWENT CLASS: P31
INVENTOR(S): **COX, B**; FERRERA, D A; FRITZ, M; **GREENE, G R**; ROSENBLUTH, R F; SCHAEFER, D; **COX, B J**; FITZ, M
PATENT ASSIGNEE(S): (MICR-N) MICROVENTION INC; (COXB-I) COX B J; (FERR-I) FERRERA D A; (FITZ-I) FITZ M; (GREE-I) GREENE G R; (ROSE-I) ROSENBLUTH R F; (SCHA-I) SCHAEFER D
COUNTRY COUNT: 101
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2002107534	A1	20020808	(200269)*		14
WO 2003059176	A2	20030724	(200349)	EN	
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT SD SE SI SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW					
AU 2003209206	A1	20030730	(200421)		
EP 1467663	A2	20041020	(200469)	EN	
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR					
JP 2005514978	W	20050526	(200535)		21
US 7033374	B2	20060425	(200628)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE

US 2002107534	A1 CIP of	US 2000-671021	20000926
		US 2002-43947	20020111
WO 2003059176	A2	WO 2003-US779	20030110
AU 2003209206	A1	AU 2003-209206	20030110
EP 1467663	A2	EP 2003-707353	20030110
		WO 2003-US779	20030110
JP 2005514978	W	JP 2003-559346	20030110
		WO 2003-US779	20030110
US 7033374	B2 CIP of	US 2000-671021	20000926
		US 2002-43947	20020111

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003209206	A1 Based on	WO 2003059176
EP 1467663	A2 Based on	WO 2003059176
JP 2005514978	W Based on	WO 2003059176
US 7033374	B2 CIP of	US 6605101

PRIORITY APPLN. INFO: US 2002-43947 20020111; US 2000-671021 20000926

AN 2002-643005 [69] WPIX

CR 2003-229183 [22]; 2003-625320 [59]; 2004-225901 [21]

AB US2002107534 A UPAB: 20060502

NOVELTY - A **filamentous** structure formed into a minimum energy state secondary configuration has multiple curved segments individually provided with a discrete axis. The vaso-occlusive device (10) defines multiple axes (16) in its minimum energy state configuration.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for an embolizing method for vascular site having predetermined maximum diameter.

USE - For occluding blood vessel by embolizing targeted site e.g. aneurysm into a blood vessel.

ADVANTAGE - Effective in treatment of aneurysms of different sizes and those with large neck widths. Compatible for use with existing quidewire and microcatheter microcoil delivery mechanisms. Low cost manufacture.

DESCRIPTION OF DRAWING(S) - The figure shows a perspective view of the microcoil vaso-occlusive device.

Vaso-occlusive device 10

Multiple axes 16

Dwg.1/17

L18 ANSWER 15 OF 20 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2002-394528 [42] WPIX

CROSS REFERENCE: 2003-311315 [30]; 2004-728044 [71]

DOC. NO. NON-CPI: N2002-309320

DOC. NO. CPI: C2002-111109

TITLE: Deployment mechanism for deploying **filamentous** endovascular device into target vascular site in patient's vasculature comprises elongate flexible hollow deployment tube, retention sleeve, and coupling element.

DERWENT CLASS: A96 P31 P32

INVENTOR(S): **COX, B J**; FERRERA, D A; GRENNE, G R; ROSENBLUTH, R F; **GREENE, G R**

PATENT ASSIGNEE(S): (MICR-N) MICROVENTION INC

COUNTRY COUNT: 95

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2002032326	A2	20020425	(200242)*	EN	42
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					
W: AE AG AL AM AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU DE DK DM DZ EC ES GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO RU SD SE SG SI SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW					
AU 2002014623	A	20020429	(200255)		
US 6607538	B1	20030819	(200356)		
EP 1339328	A2	20030903	(200365)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					
BR 2001014738	A	20040210	(200414)		
CN 1469724	A	20040121	(200425)		
JP 2004511294	W	20040415	(200426)		62

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002032326	A2	WO 2001-US32588	20011018
AU 2002014623	A	AU 2002-14623	20011018
US 6607538	B1	US 2000-692248	20001018
EP 1339328	A2	EP 2001-983174	20011018
		WO 2001-US32588	20011018
BR 2001014738	A	BR 2001-14738	20011018
		WO 2001-US32588	20011018
CN 1469724	A	CN 2001-817605	20011018
JP 2004511294	W	WO 2001-US32588	20011018
		JP 2002-535565	20011018

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2002014623	A	Based on	WO 2002032326
EP 1339328	A2	Based on	WO 2002032326
BR 2001014738	A	Based on	WO 2002032326
JP 2004511294	W	Based on	WO 2002032326

PRIORITY APPLN. INFO: US 2000-692248 20001018
AN 2002-394528 [42] WPIX
CR 2003-311315 [30]; 2004-728044 [71]
AB WO 200232326 A UPAB: 20041104
NOVELTY - Deployment mechanism comprises an elongate flexible hollow deployment tube having an open proximal end, a distal section terminating in an open distal end, and a lumen defined between the proximal and distal ends; a retention sleeve having a distal extension extending a short distance past the distal end of the deployment tube; and a coupling element attached to the proximal end.

DETAILED DESCRIPTION - Deployment mechanism comprises an elongate flexible hollow deployment tube (10) having an open proximal end, a distal section terminating in an open distal end, and a lumen defined between the proximal and distal ends; a retention sleeve (12) fixed around the distal section of the deployment tube and having a distal extension extending a short distance past the distal end of the deployment tube; and a coupling

element attached to the proximal end of the endovascular device (16) and releasably held within the distal extension of the retention sleeve near the distal end of the deployment tube to be displaceable from the retention sleeve in response to fluid pressure applied to the coupling element through the lumen and the distal end of the deployment tube. An INDEPENDENT CLAIM is included for a method of deploying a **filamentous** endovascular device into a target vascular site, which comprises providing a **filamentous** endovascular device; introducing the endovascular device intravascularly to the target vascular site while it is attached to the deployment tube; and injecting a liquid under pressure through the lumen to separate the endovascular device from the deployment tube in response to the liquid pressure applied to the coupling element through the open distal end of the deployment tube.

USE - The deployment mechanism is used for deploying **filamentous** endovascular device, e.g. embolic implant, into a target vascular site in a patient's vasculature.

ADVANTAGE - The invention provides a secure attachment of the embolic implant to a deployment instrument during the deployment process, while also allowing for the easy and reliable detachment of the embolic implant once it is properly situated with respect to the target site. It also provides improved control of the implant during deployment, and allows the implant to be easily repositioned before detachment. It can readily be used for various endovascular implants without adding to their costs.

DESCRIPTION OF DRAWING(S) - The figure is an elevational view of an endovascular device deployment mechanism with an endovascular device attached to it.

Deployment tube 10
Retention sleeve 12
Endovascular device 16

Dwg.1/19

L18 ANSWER 16 OF 20 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2001-343247 [36] WPIX
CROSS REFERENCE: 2002-691223 [74]; 2003-266113 [26]; 2004-339065 [31]; 2006-492530 [50]
DOC. NO. NON-CPI: N2001-248588
DOC. NO. CPI: C2001-106231
TITLE: **Embolization** device for, e.g. vascular aneurysm, comprises expandable embolizing micropellet connected to **filamentous** carrier at fixed location.
DERWENT CLASS: A96 P31 P32 P34
INVENTOR(S): **COX, B J**; **GREENE, G R**; ROSENBLUTH, R F
PATENT ASSIGNEE(S): (MICR-N) MICROVENTION INC
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001028434	A1	20010426	(200136)*	EN	38
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW					
US 6238403	B1	20010529	(200138)		
AU 2000077396	A	20010430	(200148)		

US 6299619 B1 20011009 (200162)
BR 2000014482 A 20020611 (200248)
EP 1225836 A1 20020731 (200257) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
CN 1376041 A 20021023 (200313)
JP 2003511188 W 20030325 (200330) 36
AU 777822 B2 20041104 (200504)
AU 2005200324 A1 20050224 (200521)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001028434	A1	WO 2000-US26926	20000929
US 6238403	B1	US 1999-410970	19991004
AU 2000077396	A	AU 2000-77396	20000929
US 6299619	B1 CIP of	US 1999-410970	19991004
		US 2000-542145	20000404
BR 2000014482	A	BR 2000-14482	20000929
		WO 2000-US26926	20000929
EP 1225836	A1	EP 2000-967148	20000929
		WO 2000-US26926	20000929
CN 1376041	A	CN 2000-813238	20000929
JP 2003511188	W	WO 2000-US26926	20000929
		JP 2001-531033	20000929
AU 777822	B2	AU 2000-77396	20000929
AU 2005200324	A1	AU 2005-200324	20050127

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000077396	A Based on	WO 2001028434
BR 2000014482	A Based on	WO 2001028434
EP 1225836	A1 Based on	WO 2001028434
JP 2003511188	W Based on	WO 2001028434
AU 777822	B2 Previous Publ.	AU 2000077396
	Based on	WO 2001028434
AU 2005200324	A1 Div ex	AU 777822

PRIORITY APPLN. INFO: US 2000-542145 20000404; US 1999-410970 19991004

AN 2001-343247 [36] WPIX
CR 2002-691223 [74]; 2003-266113 [26]; 2004-339065 [31]; 2006-492530 [50]
AB WO 200128434 A UPAB: 20060804
NOVELTY - An **embolization** device comprises an elongate, **filamentous** carrier and an expandable embolizing micropellet non-releasably connected to the carrier at a fixed location.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of embolizing a vascular site comprising passing a microcatheter intravascularly so that its distal end is in a vascular site; providing a vascular **embolization** device comprising highly expandable embolizing micropellet(s) mechanically connected to a flexible **filamentous** carrier at a fixed location; passing the **embolization** device through the microcatheter so that it emerges from the distal end of the microcatheter into the vascular site; and expanding the embolizing micropellet in situ to fill the site with the embolizing micropellet(s) and the carrier while maintaining the connection

between the embolizing micropellet(s) and the carrier.

USE - For embolizing vascular aneurysm and vascular anomalies, e.g., arteriovenous malformations, arteriovenous fistulas.

ADVANTAGE - The invented device can be deployed within a vascular site with excellent locational control and with lower risk of vascular rupture, tissue damage, or migration. It effects a conformal fit within the site to promote effective **embolization** and facilitates precise and highly controllable deployment through its ability to be delivered to the site through a microcatheter.

DESCRIPTION OF DRAWING(S) - The figure shows a vascular **embolization** device of the invention.

Embolizing micropellet 12

Microcoil spacer 16

Dwg.1/13

L18 ANSWER 17 OF 20 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2001-244347 [25] WPIX

CROSS REFERENCE: 1999-312559 [26]

DOC. NO. NON-CPI: N2001-173954

DOC. NO. CPI: C2001-073290

TITLE: Liquid embolic delivery system including a catheter with a lumen, a containment member, and a detachment mechanism.

DERWENT CLASS: B07 P31 P34

INVENTOR(S): CRAGG, H; GREENE, R; GREFF, J; JONES, M; PERL, ; WALKER, D; WALLACE, G; CRAGG, A H; **GREENE, G R**; GREFF, R J; PERL, J; WALKER, B D

PATENT ASSIGNEE(S): (MICR-N) MICRO THERAPEUTICS INC; (CRAG-I) CRAGG A H; (GREE-I) GREENE G R; (GREF-I) GREFF R J; (JONE-I) JONES M; (PERL-I) PERL J; (WALK-I) WALKER B D; (WALL-I) WALLACE G

COUNTRY COUNT: 28

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001015608	A1	20010308	(200125)*	EN	32
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE					
W: CA JP					
EP 1207791	A1	20020529	(200243)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
US 6511468	B1	20030128	(200311)		
US 2003040733	A1	20030227	(200318)		
JP 2003508107	W	20030304	(200319)		30
EP 1207791	B1	20041006	(200466)	EN	
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
DE 60014672	E	20041111	(200474)		
DE 60014672	T2	20051117	(200576)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001015608	A1	WO 2000-US40603	20000807
EP 1207791	A1	EP 2000-965597	20000807
		WO 2000-US40603	20000807
US 6511468	B1 CIP of	US 1997-953149	19971017
		US 1999-387274	19990831

US 2003040733	A1	CIP of	US 1997-953149	19971017
		Cont of	US 1999-387274	19990831
			US 2002-242469	20020913
JP 2003508107	W		WO 2000-US40603	20000807
			JP 2001-519825	20000807
EP 1207791	B1		EP 2000-965597	20000807
			WO 2000-US40603	20000807
DE 60014672	E		DE 2000-00014672	20000807
			EP 2000-965597	20000807
			WO 2000-US40603	20000807
DE 60014672	T2		DE 2000-00014672	20000807
			EP 2000-965597	20000807
			WO 2000-US40603	20000807

FILING DETAILS:

PATENT NO	KIND		PATENT NO
EP 1207791	A1	Based on	WO 2001015608
US 6511468	B1	CIP of	US 6146373
US 2003040733	A1	CIP of	US 6146373
JP 2003508107	W	Based on	WO 2001015608
EP 1207791	B1	Based on	WO 2001015608
DE 60014672	E	Based on	EP 1207791
		Based on	WO 2001015608
DE 60014672	T2	Based on	EP 1207791
		Based on	WO 2001015608

PRIORITY APPLN. INFO: US 1999-387274 19990831; US 1997-953149 19971017; US 2002-242469 20020913

AN 2001-244347 [25] WPIX

CR 1999-312559 [26]

AB WO 200115608 A UPAB: 20051125

NOVELTY - A liquid embolic delivery system, comprising a catheter with a lumen for delivery of a liquid embolic composition to a cavity, and a containment member, is new. A detachment mechanism is provided for completely detaching the containment member from the catheter after solidification of the composition to allow separation of the catheter from a mass of solidified embolic composition.

DETAILED DESCRIPTION - A liquid embolic delivery system (120) comprises a catheter (122) having a lumen (124, 126) for delivery of a liquid embolic composition to a cavity. A containment member is positioned at a distal end of the catheter and shaped to trap the liquid embolic composition delivered through the lumen. A detachment mechanism completely detaches the containment member from the catheter after solidification of the liquid embolic composition to allow separation of the catheter from a mass of solidified embolic composition.

An INDEPENDENT CLAIM is also included for a method of containing a liquid embolic composition at an **embolization** site within a body, comprising:

(1) delivering the composition to the site within the body with a catheter;

(2) containing the composition during solidification with a containment member; and

(3) detaching the containment member from the catheter after solidification of the liquid embolic composition to release the catheter from a mass of solidified embolic composition.

USE - For the delivery of liquid embolic compositions.

ADVANTAGE - The delivery system disturbs the blood flow into and out of the aneurysm (90) to improve control over the injection of the liquid embolic composition. The disturbance of blood flow into and out of the aneurysm through the aneurysm neck (92) creates a low turbulence or peaceful fluid environment within the aneurysm, which allows improved filling of the aneurysm with the embolic material.

DESCRIPTION OF DRAWING(S) - The figure shows a side cross sectional view of an aneurysm with an aneurysm neck flow disruption system.

Aneurysm 90

Aneurysm neck 92

Delivery system 120

Catheter 122

Lumen 124, 126

Dwg.18/20

L18 ANSWER 18 OF 20 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2000-147306 [13] WPIX

DOC. NO. NON-CPI: N2000-109010

DOC. NO. CPI: C2000-046121

TITLE: Vascular implant device for embolizing a vascular site, such as vascular aneurysms and similar vascular abnormalities.

DERWENT CLASS: A96 D22 P31 S05

INVENTOR(S): **COX, B J**; **GREENE, G R**; ROSENBLUTH, R F; COX, J; GREENE, R; ROSENBLUTH, F; **COX, B**; **GREENE, G**; ROSENBLUTH, R

PATENT ASSIGNEE(S): (MICR-N) MICROVENTION INC; (COXB-I) COX B J; (GREE-I) GREENE G R; (ROSE-I) ROSENBLUTH R F

COUNTRY COUNT: 87

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000001308	A1	20000113	(200013)*	EN	29
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW					
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZA ZW					
AU 9947312	A	20000124	(200027)		
US 6165193	A	20001226	(200103)		
BR 9911860	A	20010320	(200123)		
EP 1093346	A1	20010425	(200124)	EN	
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
US 2001001835	A1	20010524	(200130)		
CN 1308507	A	20010815	(200174)		
JP 2002519134	W	20020702	(200246)		31
AU 754493	B	20021121	(200305)		
US 6500190	B2	20021231	(200305)		
US 2003083737	A1	20030501	(200331)		
US 2003088311	A1	20030508	(200337)		
EP 1093346	B1	20060315	(200622)	EN	
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
US 7029487	B2	20060418	(200627)		
DE 69930385	E	20060511	(200634)		

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
WO 2000001308	A1		WO 1999-US15108	19990702
AU 9947312	A		AU 1999-47312	19990702
US 6165193	A		US 1998-110816	19980706
BR 9911860	A		BR 1999-11860	19990702
			WO 1999-US15108	19990702
EP 1093346	A1		EP 1999-930869	19990702
			WO 1999-US15108	19990702
US 2001001835	A1	Cont of	US 1998-110816	19980706
			US 2000-730071	20001205
CN 1308507	A		CN 1999-808315	19990702
JP 2002519134	W		WO 1999-US15108	19990702
			JP 2000-557758	19990702
AU 754493	B		AU 1999-47312	19990702
US 6500190	B2	Cont of	US 1998-110816	19980706
			US 2000-730071	20001205
US 2003083737	A1	Cont of	US 1998-110816	19980706
		Div ex	US 2000-730071	20001205
			US 2002-309442	20021204
US 2003088311	A1	Cont of	US 1998-110816	19980706
		Cont of	US 2000-730071	20001205
			US 2002-320033	20021216
EP 1093346	B1		EP 1999-930869	19990702
			WO 1999-US15108	19990702
US 7029487	B2	Cont of	US 1998-110816	19980706
		Div ex	US 2000-730071	20001205
			US 2002-309442	20021204
DE 69930385	E		DE 1999-630385	19990702
			EP 1999-930869	19990702
			WO 1999-US15108	19990702

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9947312	A	Based on	WO 2000001308
BR 9911860	A	Based on	WO 2000001308
EP 1093346	A1	Based on	WO 2000001308
JP 2002519134	W	Based on	WO 2000001308
AU 754493	B	Previous Publ.	AU 9947312
		Based on	WO 2000001308
US 6500190	B2	Cont of	US 6165193
US 2003083737	A1	Cont of	US 6165193
		Div ex	US 6500190
US 2003088311	A1	Cont of	US 6165193
		Cont of	US 6500190
EP 1093346	B1	Based on	WO 2000001308
US 7029487	B2	Cont of	US 6165193
		Div ex	US 6500190
DE 69930385	E	Based on	EP 1093346
		Based on	WO 2000001308

PRIORITY APPLN. INFO: US 1998-110816 19980706; US
2000-730071 20001205; US
2002-309442 20021204; US
2002-320033 20021216

AN 2000-147306 [13] WPIX

AB WO 200001308 A UPAB: 20000313

NOVELTY - A vascular device (20) for embolizing a vascular site (40), has a compressed configuration which is expandable into an expanded configuration conforming to the shape and size of the vascular site.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(A) manufacturing a vascular implant device comprising:

(i) imaging a vascular site by scanning the site to create a digitized scan data set;

(ii) creating a three-dimensional digitized virtual model of the vascular site using the scan data set, and

(iii) forming a vascular implant device in the configuration of a physical model of the vascular site, using the virtual model, the implant being formed from a compressible foam material;

(B) embolizing a vascular site comprising:

(i) providing the invented vascular implant,

(ii) compressing the implant into a compressed configuration,

(iii) deploying the implant in a vascular site with a microcatheter, while the implant is in its compressed configuration, and

(iv) expanding the implant in situ to fill the vascular site; and

(C) an apparatus (30) for embolizing a vascular site (40) comprising:

(i) a microcatheter having a distal end and a proximal end,

(ii) an invented vascular implant device (20),

(iii) a retention element contained within the microcatheter and having a distal end detachably connected to the implant device, and

(iv) a deployment element operably associated with the retention element and engageable against the implant device to separate the implant device from the retention element when the implant device has emerged from the distal end of the microcatheter.

USE - The vascular implant is used for embolizing a vascular site, to occlude vascular bleeding, the blood supply to tumors, and vascular aneurysms, particularly intracranial aneurysms.

ADVANTAGE - The vascular implant provides an effective vascular **embolization** implant that can be deployed within a vascular site with excellent locational control, and with a lower risk of vascular rupture, tissue damage, or migration than the prior art implant devices. The implant device, by being modeled on the actual vascular site in which it is to be implanted, effects a conformal fit within the site that promotes effective **embolization**, and yet its ability to be delivered to the site in a highly compressed configuration facilitates precise and highly controllable deployment with a microcatheter. It can effectively embolize vascular sites having a wide variety of sizes, configurations, and (in particular case of aneurysms) neck widths.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic view of an implant device free of the implanting apparatus.

Implant device 20

Implanting apparatus 30

Vascular site 40

Dwg.10/10

L18 ANSWER 19 OF 20 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2000-023238 [02] WPIX

DOC. NO. NON-CPI: N2000-017316

DOC. NO. CPI: C2000-005615

TITLE: Apparatus for vascular **embolization** of a targeted site, such as an aneurysm in the blood vessel.

DERWENT CLASS: A96 P31

INVENTOR(S): **COX, B J**; **GREENE, G R**; ROSENBLUTH, R F; COX, J; GREENE, R; ROSENBLUTH, F; GREEN, G R

PATENT ASSIGNEE(S): (MICR-N) MICROVENTION INC

COUNTRY COUNT: 87
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9955239	A1	19991104	(200002)*	EN	31
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW					
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZA ZW					
US 6015424	A	20000118	(200011)		
AU 9938609	A	19991116	(200015)		
BR 9910027	A	20001226	(200103)		
EP 1073377	A1	20010207	(200109)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
CN 1298287	A	20010606	(200157)		
US 6375669	B1	20020423	(200232)		
JP 2002512837	W	20020508	(200234)		32
AU 764797	B	20030828	(200361)		
AU 2003264582	A1	20040108	(200442)#		
EP 1073377	B1	20041117	(200476)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
DE 69921979	E	20041223	(200501)		
EP 1518502	A1	20050330	(200522)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
ES 2232136	T3	20050516	(200535)		
DE 69921979	T2	20051124	(200581)		
CN 1200648	C	20050511	(200652)		

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
WO 9955239	A1		WO 1999-US7399	19990423
US 6015424	A		US 1998-69008	19980428
AU 9938609	A		AU 1999-38609	19990423
BR 9910027	A		BR 1999-10027	19990423
			WO 1999-US7399	19990423
EP 1073377	A1		EP 1999-921377	19990423
			WO 1999-US7399	19990423
CN 1298287	A		CN 1999-805608	19990423
US 6375669	B1	Cont of	US 1998-69008	19980428
			US 1999-471507	19991223
JP 2002512837	W		WO 1999-US7399	19990423
			JP 2000-545447	19990423
AU 764797	B		AU 1999-38609	19990423
AU 2003264582	A1		AU 2003-264582	20031126
EP 1073377	B1		EP 1999-921377	19990423
			WO 1999-US7399	19990423
		Related to	EP 2004-19762	19990423
DE 69921979	E		DE 1999-621979	19990423
			EP 1999-921377	19990423
			WO 1999-US7399	19990423
EP 1518502	A1	Div ex	EP 1999-921377	19990423

		EP 2004-19762	19990423
ES 2232136	T3	EP 1999-921377	19990423
DE 69921979	T2	DE 1999-621979	19990423
		EP 1999-921377	19990423
		WO 1999-US7399	19990423
CN 1200648	C	CN 1999-805608	19990423

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9938609	A	Based on	WO 9955239
BR 9910027	A	Based on	WO 9955239
EP 1073377	A1	Based on	WO 9955239
US 6375669	B1	Cont of	US 6015424
JP 2002512837	W	Based on	WO 9955239
AU 764797	B	Previous Publ.	AU 9938609
		Based on	WO 9955239
AU 2003264582	A1	Div ex	AU 764797
EP 1073377	B1	Based on	WO 9955239
DE 69921979	E	Based on	EP 1073377
		Based on	WO 9955239
EP 1518502	A1	Div ex	EP 1073377
ES 2232136	T3	Based on	EP 1073377
DE 69921979	T2	Based on	EP 1073377
		Based on	WO 9955239

PRIORITY APPLN. INFO: US 1998-69008 19980428; US 1999-471507 19991223; AU 2003-264582 20031126

AN 2000-023238 [02] WPIX

AB WO 9955239 A UPAB: 20000112

NOVELTY - The apparatus comprises of flexible elongated hollow deployment tube, (16) which can be inserted through the axial lumen of a micro catheter (14). The distal end of the deployment tube is detachably fixed to the proximal end of a **filamentous** embolic device. The embolic device can be transformed from soft flexible state to a rigid or semi-rigid state.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(i) The vascular embolic device; and

(ii) Method of embolizing a vascular site, which involves deploying a catheter such that its distal end is adjacent to the vascular site.

The soft, flexible embolic device is then deployed through the catheter into the vascular site, where the device forms a web-like mass (40). The embolic device is then transformed from its soft state to its rigid or semi-rigid state.

USE - For occluding a blood vessel by embolizing a targeted site, such as an aneurysm in the blood vessel.

ADVANTAGE - The apparatus enables the formation of a stable thrombogenic plug inside the aneurysm. The embolic device is inserted into the aneurysm in a soft and compliant state, hence the risk of aneurysm rupture or vascular damage is minimized. The location of the embolic device can be controlled until it is detached from the deployment tube. The embolic device can be used in aneurysms of different shapes and sizes, without the risk of the device migrating out of the aneurysm.

DESCRIPTION OF DRAWING(S) - The figure shows embolic device inserted into an aneurysm.

Micro catheter; 14

Deployment tube; 16
Web-like mass 40
Dwg.3/16

L18 ANSWER 20 OF 20 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 1996-333091 [33] WPIX
TITLE: Method for forming threading on suture anchor for driving into bone - involves providing anchor with eyelet and driving suture into bone and engaging with implement to remove suture through eyelet.
DERWENT CLASS: P31
INVENTOR(S): BRENNEMAN, R; **GREENE, G R**
PATENT ASSIGNEE(S): (VESI-N) VESICA MEDICAL INC
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 5534011	A	19960709	(199633)*		6

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 5534011	A	US 1994-330343	19941027

PRIORITY APPLN. INFO: US 1994-330343 19941027
AN 1996-333091 [33] WPIX
AB US 5534011 A UPAB: 19960823
The method comprises of providing a suture anchor having an eyelet, with at least a portion of a pre-installed suture engaging implement passed through the eyelet. Then driving the suture anchor into a bone, leaving the eyelet and the suture engaging implement exposed. Then engaging a suture with the suture engaging implement and removing the suture engaging implement from the eyelet so as to pull the suture through the eyelet. Finally disengaging the suture engaging implement from the suture.

The suture engaging implement comprises a thin, flexible tube having an open end. The tube is pre-installed in the anchor by passing it through the eyelet. One end of the suture is pushed into the open end of the tube. The tube is pulled out of the eyelet so as to pull the suture through the eyelet. The end of the suture is then removed from the open end of the tube. In an alternative method it employs a loop of flexible, **filamentous** material as the suture engaging implement. The loop is pre-installed in the anchor by passing a portion of the loop through the eyelet. One end of the suture is passed through the portion of the loop that has been passed through the eyelet. The loop is pulled out of the eyelet so as to pull the suture through the eyelet. The suture is then removed from the loop.

ADVANTAGE - greatly facilitates the threading of the suture through the eyelet of the anchor, reduces the rick of damage off suture during installation.
Dwg.4/7

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=> d his

     (FILE 'HOME' ENTERED AT 14:22:54 ON 15 AUG 2006)

     FILE 'HCAPLUS' ENTERED AT 14:23:17 ON 15 AUG 2006
L1            0 (US2004059370 OR US6299619 OR US6238403 OR US6602261 OR US62996

     FILE 'WPIX' ENTERED AT 14:26:38 ON 15 AUG 2006
L2            7 L1
                SEL AN 1-4 6-7
L3            6 L2 AND E1-6

     FILE 'HCAPLUS' ENTERED AT 14:27:30 ON 15 AUG 2006
                E GREENE G/AU
L4           31 E3,E16
                E CRUISE G/AU
L5            9 E4-6
                E CONSTANT M/AU
L6           41 E3-6
                E CONSTANT MICHAEL/AU
L7            4 E3-5
                E COX B/AU
L8          399 E3,E12
                E COX BRIAN/AU
L9          142 E3,E12-13
                E TRAN T/AU
L10         358 E3-32
                E TRAN TERRANCE/AU
                E EMBOL/CT
                E E8+ALL
L11        6015 E5+OLD,RT
                E THROMBUS/CT
                E E3+ALL
L12        3683 E5+OLD
                E E24+ALL
L13         215 E4
                E THROMBOSIS/CT
L14       13179 E3+OLD,NT
                E THROMBOLYTICS/CT
                E E3+ALL
L15        2788 E4
L16           4 L4-10 AND L11-15
                SEL AN 1-2
L17           2 L16 AND E1-4
                E HYDROGELS/CT
L18        7789 E3-7
                E E3+ALL
L19        8818 E9+OLD
                E POLYMERS/CT
L20        6689 (POLYMERS+OLD,NT1/CT OR POLYMER#/CW)(L) HYDROPHIL?
L21       10004 (POLYMERS+OLD,NT1/CT OR POLYMER#/CW)(L) (WATER SOL?)
L22         230 (POLYMERS+OLD,NT1/CT OR POLYMER#/CW)(L) (H2O SOL?)
L23           4 (POLYMERS+OLD,NT1/CT OR POLYMER#/CW) (L)STRETCH RESIST?
L24       16734 L20-23
                E ANTI-EMBOL/CT
                E ANTIEMBOL/CT
L25          81 L18-19,L24 AND L11-15
L26           1 L25 AND L4-10
L27          80 L25 NOT L26
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L28          25 L27 AND (PY<=1999 OR AY<=1999 OR PRY<=1999)
                E MEDICAL/CT
                E E15_ALL
                E MEDICAL/CT
                E E15+ALL
                E E2+ALL
L29       40128 E4+OLD
                E MEDICAL IN/CT
                E E5+ALL
L30           8 L28 AND L29
                SEL AN 1-4 6-8
L31           7 E1-14 AND L30
L32           9 L17,L26,L31
L33           9 L32 AND L1,L4-31

     FILE 'WPIX' ENTERED AT 14:58:07 ON 15 AUG 2006
L34      142031 A12-V03D/MC OR (B3521 OR B3372)/PLE
L35       29816 (B11-C04? OR C11-C04?)/MC
L36        2224 (B04-H19 OR C04-H19)/MC
L37         158 L34 AND L36
L38          67 L37 AND L35
L39           4 L38 NOT (PY>1999 OR AY>1999 OR AY>1999)
L40         301 L34 AND L35 AND (BLOOD CLOT? OR EMBOL? OR THROMB?)
L41          31 L40 NOT (PY>1999 OR AY>1999 OR AY>1999)
L42          29 L41 AND A96/DC
                SEL AN 1 3 5 7 10 11 20
L43           7 L42 AND E15-21
L44          13 L3,L43

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FILE LAST UPDATED: 14 Aug 2006  (20060814/ED)

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L33  ANSWER 1 OF 9  HCAPLUS  COPYRIGHT 2006 ACS on STN
AN   2004:987688  HCAPLUS
DN   141:416082
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ED Entered STN: 18 Nov 2004
TI In situ polymerizable hydrogels
IN Sawhney, Amarpreet S.
PA Incept LLC, USA
SO U.S., 18 pp.
CODEN: USXXAM
DT Patent
LA English
IC ICM A61F-0002/02
INCL 623011110; 623023580; 623926000; 523113000
CC 63-7 (Pharmaceuticals)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US---6818018	B1	20041116	1998US-0133940	19980814 <--
PRAI 1998US-0133940		19980814 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6818018	ICM	A61F-0002/02
	INCL	623011110; 623023580; 623926000; 523113000
	IPCI	A61F0002-02 [ICM,7]
	IPCR	A61L0027-00 [I,C*]; A61L0027-34 [I,A]; A61L0027-52 [I,A]; A61L0031-08 [I,C*]; A61L0031-10 [I,A]; A61L0031-14 [I,A]; A61L0031-14 [I,C*]
	NCL	623/011.110; 523/113.000; 623/023.580; 623/926.000
	ECLA	A61L027/34; A61L027/52; A61L031/10; A61L031/14F

AB Compns. and methods for forming hydrogels in situ through a combination of phys. and chemical crosslinking processes are provided in which phys. crosslinking is mediated by one or more natural or synthetic components that stabilize the hydrogel-forming precursor solns. at a deposition site for a period of time sufficient for more resilient chemical crosslinks to form. Methods of using such hydrogels as tissue coatings to prevent postsurgical adhesion formation, as tissue augmentation or luminal occlusion aids, as matrixes for carrying cells, drugs or other bioactive species, as tissue sealants or adhesives, and as medical device coatings are also provided. Tissue augmentation with in situ formed hydrogel is exemplified. A water-soluble crosslinking agent solution containing 20% of a polyethylene glycol-based bifunctional crosslinking agent (preparation given) and 18% of Pluronic F127 in phosphate buffered saline and a water-soluble crosslinkable polymer, such as poly(L-lysine), dissolved at 5% in a sodium borate buffered solution at a pH 11 which addnl. contains 18% Pluronic F127 were drawn into a multichamber syringe and injected onto or into tissues in need of augmentation. As the plunger of the syringe is depressed and the material is injected beneath the skin, the components mix in the needle of syringe and crosslink in situ. Some of the activated polymer mols. addnl. may crosslink to the patient's own proteins and other natural materials to anchor the implant in place. Preferably, contact of the solns. (which are at room temperature or cooler), with tissue at warmer physiol. temps. will result in an immediate increase in viscosity and gelation due to phys. crosslinking. Within about 1-2 min a firm gel should result due to the subsequent chemical crosslinking.

ST polymer crosslinking gelation hydrogel implant drug carrier
IT Diagnosis
(agents, carriers for; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)
IT Polymerization
(anionic; in situ formation of hydrogels by crosslinking of water-soluble

precursors for biomedical uses)
IT Artery
(artificial, hydrogel coating of; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)
IT Animal tissue
(augmentation or luminal occlusion of; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)
IT Adhesives
(biol. tissue; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)
IT Enzymes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carriers for; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)
IT Drug delivery systems
(carriers; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)
IT Polymerization
(cationic; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)
IT **Medical goods**
(coatings for; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)
IT Polymerization
(condensation; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)
IT Eye
(cornea, shields; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)
IT Contact lenses
(corneal shields; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)
IT **Medical goods**
(dressings, coatings for; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)
IT **Embolism**
(embolization; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)
IT Animal cell
(encapsulation of; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)
IT Hemoglobins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(encapsulation of; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)
IT Liver
(hepatocyte, transplantation of; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)
IT Drug delivery systems
(hydrogels; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)
IT Drug delivery systems
Prosthetic materials and Prosthetics
(implants; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)
IT Coating materials
Crosslinking
Crosslinking agents
Gelation

Hydrogels
Polyelectrolytes
Stabilizing agents
(in situ formation of hydrogels by crosslinking of **water-soluble** precursors for biomedical uses)

IT **Fluoropolymers, biological studies**
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(in situ formation of hydrogels by crosslinking of **water-soluble** precursors for biomedical uses)

IT **Macromonomers**
RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(in situ formation of hydrogels by crosslinking of **water-soluble** precursors for biomedical uses)

IT Polyoxyalkylenes, biological studies
RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)

IT **Polyesters, biological studies**
RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(lactic acid-based; in situ formation of hydrogels by crosslinking of **water-soluble** precursors for biomedical uses)

IT Encapsulation
(microencapsulation, of cells and tissues; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)

IT Transplant and Transplantation
(of liver cells; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)

IT **Polymers, biological studies**
RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(pH responsive and thermoreversible; in situ formation of hydrogels by crosslinking of **water-soluble** precursors for biomedical uses)

IT Polymerization
(photopolymn.; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)

IT Pericardium
(prevention of postsurgical adhesion; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)

IT Adhesion, biological
(prevention of postsurgical; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)

IT Polymerization
(radical; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)

IT Polymerization
(step-growth; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)

IT **Medical goods**
(sutures, coatings for; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)

IT **Medical goods**
(tissue adhesives; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)

IT 51-61-6, Dopamine, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(-secreting cells, encapsulation of; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)
IT 139639-23-9, Tissue plasminogen activator
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carriers for; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)
IT 67-45-8, Furoxone 76-61-9, Thymol Blue 88-89-1, Picric acid 143-74-8, Phenol Red 1837-57-6, Rivanol
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(color indicator; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)
IT 6066-82-6DP, reaction products with polyoxyalkylene-polyesters 91628-97-6DP, N-hydroxysuccinimide terminated
RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)
IT 9003-01-4, Poly(acrylic acid) 25104-18-1, Poly(L-lysine) 25322-68-3D, Polyethylene glycol, acrylate-terminated 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6, Poly(DL-lactic acid) 26570-48-9, Polyethylene glycol diacrylate 38000-06-5, Poly(L-lysine)
RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)
IT 299-29-6, Ferrous gluconate 7722-84-1, Hydrogen peroxide, biological studies 691397-13-4, Pluronic F 127
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)
IT 9002-84-0, Gore-Tex
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(vascular graft, coatings for; in situ formation of hydrogels by crosslinking of water-soluble precursors for biomedical uses)
RE.CNT 89 THERE ARE 89 CITED REFERENCES AVAILABLE FOR THIS RECORD
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L33 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2006 ACS on STN
AN **2002:716008** HCAPLUS
DN 137:237799
ED Entered STN: 20 Sep 2002
TI Hydrogels that undergo volumetric expansion in response to changes in their environment and their methods of manufacture and use
IN **Cruise, Gregory M.; Constant, Michael J.**
PA Microvention, Inc., USA
SO PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61F-0013/00
ICS A61F-0002/00; A61K-0009/70; A61K-0009/14; A61K-0031/74; A61K-0047/48
CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO2002071994	A1	20020919	2002WO-US05988	20020228
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US2002176880	A1	20021128	2001US-0804935	20010313
	US---6878384	B2	20050412		
	CA---2439925	AA	20020919	2002CA-2439925	20020228
	EP---1372553	A1	20040102	2002EP-0750563	20020228
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	BR2002008034	A	20040225	2002BR-0008034	20020228
	JP2004528880	T2	20040924	2002JP-0570954	20020228
	CN---1617694	A	20050518	2002CN-0806384	20020228
	US2005196426	A1	20050908	2005US-0090806	20050324
PRAI	2001US-0804935	A	20010313		
	2002WO-US05988	W	20020228		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2002071994	ICM	A61F-0013/00

	ICS	A61F-0002/00; A61K-0009/70; A61K-0009/14; A61K-0031/74; A61K-0047/48
	IPCI	A61F0013-00 [ICM,7]; A61F0002-00 [ICS,7]; A61K0009-70 [ICS,7]; A61K0009-14 [ICS,7]; A61K0031-74 [ICS,7]; A61K0047-48 [ICS,7]
	IPCR	A61K0009-00 [I,A]; A61K0009-00 [I,C*]; A61K0049-04 [I,A]; A61K0049-04 [I,C*]
	ECLA	A61K009/00M5D; A61K049/04H8D
US2002176880	IPCI	A61F0013-00 [ICM,7]
	IPCR	A61K0009-00 [I,A]; A61K0009-00 [I,C*]; A61K0049-04 [I,A]; A61K0049-04 [I,C*]
	NCL	424/423.000
	ECLA	A61K009/00M4; A61K049/04H8D; A61K009/00M5D
CA---2439925	IPCI	A61F0013-00 [ICM,7]; A61F0002-00 [ICS,7]; A61K0009-14 [ICS,7]; A61K0047-48 [ICS,7]; A61K0009-70 [ICS,7]; A61K0031-74 [ICS,7]
	IPCR	A61K0009-00 [I,A]; A61K0009-00 [I,C*]; A61K0049-04 [I,A]; A61K0049-04 [I,C*]
	ECLA	A61K009/00M5D; A61K049/04H8D
EP---1372553	IPCI	A61F0013-00 [ICM,7]; A61F0002-00 [ICS,7]; A61K0009-70 [ICS,7]; A61K0009-14 [ICS,7]; A61K0031-74 [ICS,7]; A61K0047-48 [ICS,7]
	IPCR	A61K0009-00 [I,A]; A61K0009-00 [I,C*]; A61K0049-04 [I,A]; A61K0049-04 [I,C*]
BR2002008034	IPCI	A61F0013-00 [ICM,7]; A61F0002-00 [ICS,7]; A61K0009-70 [ICS,7]; A61K0009-14 [ICS,7]; A61K0031-74 [ICS,7]; A61K0047-48 [ICS,7]
	IPCR	A61K0009-00 [I,A]; A61K0009-00 [I,C*]; A61K0049-04 [I,A]; A61K0049-04 [I,C*]
	ECLA	A61K009/00M5D; A61K049/04H8D
JP2004528880	IPCI	A61L0031-00 [ICM,7]; A61L0026-00 [ICS,7]; A61L0027-00 [ICS,7]
	IPCR	A61K0009-00 [I,A]; A61K0009-00 [I,C*]; A61K0049-04 [I,A]; A61K0049-04 [I,C*]
	FTERM	4C081/AA02; 4C081/AA12; 4C081/AB13; 4C081/AC03; 4C081/BA11; 4C081/BB02; 4C081/CA081; 4C081/CA101; 4C081/CB041; 4C081/CC01; 4C081/CC05; 4C081/CF21; 4C081/DA01; 4C081/DA12; 4C081/DB03; 4C081/DC12; 4C081/EA02; 4C081/EA11; 4C081/EA13
CN---1617694	IPCI	A61F0013-00 [ICM,7]; A61F0002-00 [ICS,7]; A61K0009-70 [ICS,7]; A61K0009-14 [ICS,7]; A61K0031-74 [ICS,7]; A61K0047-48 [ICS,7]
	IPCR	A61K0009-00 [I,A]; A61K0009-00 [I,C*]; A61K0049-04 [I,A]; A61K0049-04 [I,C*]
	ECLA	A61K009/00M5D; A61K049/04H8D
US2005196426	IPCI	A61F0002-00 [ICM,7]; A61K0009-14 [ICS,7]
	IPCR	A61K0009-00 [I,A]; A61K0009-00 [I,C*]; A61K0049-04 [I,A]; A61K0049-04 [I,C*]
	NCL	424/426.000
	ECLA	A61K009/00M5D; A61K049/04H8D

AB Hydrogels that expand volumetrically in response to a change in their environment (e.g., a change in pH or temperature) and their methods of manufacture and use. Generally, the hydrogels are prepared by forming a liquid reaction mixture that contains (a) monomer(s) and/or polymer(s) at least portion(s) of which are sensitive to environmental changes (e.g., changes in pH or temperature), (b) a crosslinker and (c) a polymerization initiator. If desired, a porosigen may be incorporated into the liquid reaction mixture to create

pores. After the hydrogel is formed, the porosigen is removed to create pores in the hydrogel. The hydrogel may also be treated to cause it to assume a non-expanded volume in which it remains until a change in its environment causes it to expand. These hydrogels may be prepared in many forms including pellets, filaments, and particles. Biomedical uses of these hydrogels include applications wherein the hydrogel is implanted in the body of a patient and an environmental condition at the implantation site causes the hydrogel to expand it situ. A hydrogel was prepared by the polymerization of acrylamide, sodium acrylate, and N,N-methylene-bis-acrylamide.
The hydrogel can be used for embolization of aneurysm.

ST hydrogel expansion environment temp pH; acrylic polymer hydrogel embolization aneurysm

IT Blood vessel, disease
(arteriovenous malformation; hydrogels that undergo volumetric expansion in response to changes in their environment)

IT **Medical goods**
(catheters; hydrogels that undergo volumetric expansion in response to changes in their environment)

IT Imaging agents
(contrast, radiog.; hydrogels that undergo volumetric expansion in response to changes in their environment)

IT **Embolism**
(embolization; hydrogels that undergo volumetric expansion in response to changes in their environment)

IT Aneurysm
Catalysts
Crosslinking agents
Expansion
Ice
Polymerization catalysts
Porosity
Temperature
pH
(hydrogels that undergo volumetric expansion in response to changes in their environment)

IT Acrylic polymers, biological studies
RL: DEV (Device component use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hydrogels that undergo volumetric expansion in response to changes in their environment)

IT Polymers, biological studies
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hydrogels that undergo volumetric expansion in response to changes in their environment)

IT Drug delivery systems
(hydrogels; hydrogels that undergo volumetric expansion in response to changes in their environment)

IT Drug delivery systems
(implants; hydrogels that undergo volumetric expansion in response to changes in their environment)

IT Blood vessel, disease
(occlusion; hydrogels that undergo volumetric expansion in response to changes in their environment)

IT 110-26-9
RL: POF (Polymer in formulation); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)

(crosslinker; hydrogels that undergo volumetric expansion in response to changes in their environment)
IT 51-80-9, N,N,N',N'-Tetramethylmethylenediamine 7727-54-0, Ammonium persulfate
RL: CAT (Catalyst use); USES (Uses)
(hydrogels that undergo volumetric expansion in response to changes in their environment)
IT 33882-67-6P
RL: DEV (Device component use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hydrogels that undergo volumetric expansion in response to changes in their environment)
IT 57-50-1, Sucrose, uses 144-55-8, Sodium bicarbonate, uses 7447-40-7, Potassium chloride, uses 7647-14-5, Sodium chloride, uses
RL: NUU (Other use, unclassified); USES (Uses)
(hydrogels that undergo volumetric expansion in response to changes in their environment)
IT 7440-06-4, Platinum, biological studies 7440-25-7, Tantalum, biological studies 7440-57-5, Gold, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hydrogels that undergo volumetric expansion in response to changes in their environment)
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Graham; US---5447727 A 1995 HCAPLUS
(2) Harada; US---6333109 B1 2001 HCAPLUS
(3) Vogel; US---6335028 B1 2002 HCAPLUS

L33 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2006 ACS on STN
AN **2002:616378** HCAPLUS
DN 137:175033
ED Entered STN: 16 Aug 2002
TI Radiation cross-linked polymer hydrogels
IN **Cruise, Gregory M.**
PA Microvention, Inc., USA
SO U.S. Pat. Appl. Publ., 6 pp.
CODEN: USXXCO
DT Patent
LA English
IC ICM A61K-0031/74
ICS C08K-0003/00
INCL 523105000
CC 63-8 (Pharmaceuticals)
Section cross-reference(s): 38
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US2002111392	A1	20020815	2001US-0783762	20010214
	US---6537569	B2	20030325		
	CA---2437870	AA	20020822	2002CA-2437870	20020213
	WO2002064189	A2	20020822	2002WO-US04166	20020213
	WO2002064189	A3	20021205		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW; MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP---1365704		A2	20031203	2002EP-0723139	20020213
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR2002007249		A	20040309	2002BR-0007249	20020213
CN---1496241		A	20040512	2002CN-0804996	20020213
JP2004520134		T2	20040708	2002JP-0563981	20020213
PRAI 2001US-0783762		A	20010214		
2002WO-US04166		W	20020213		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2002111392	ICM	A61K-0031/74
	ICS	C08K-0003/00
	INCL	523105000
	IPCI	A61K0031-74 [ICM,7]; C08K0003-00 [ICS,7]
	IPCR	A61K0009-20 [I,A]; A61K0009-20 [I,C*]; A61K0031-74 [I,A]; A61K0031-74 [I,C*]; A61K0031-765 [I,A]; A61L0024-00 [I,A]; A61L0024-00 [I,C*]; A61L0024-04 [I,A]; A61L0026-00 [I,A]; A61L0026-00 [I,C*]; A61L0027-00 [I,C*]; A61L0027-18 [I,A]; A61L0027-52 [I,A]; A61L0027-58 [I,A]; A61L0031-04 [I,C*]; A61L0031-06 [I,A]; A61L0031-14 [I,A]; A61L0031-14 [I,C*]; C08L0071-00 [I,C*]; C08L0071-02 [I,A]
	NCL	523/105.000
	ECLA	A61K009/20H6D; A61K031/765; A61L024/00H7; A61L026/00H7; A61L027/52; A61L031/14F
CA---2437870	IPCI	A61K0031-74 [ICM,7]; A61K0009-00 [ICS,7]; A61L0024-04 [ICS,7]; A61L0024-00 [ICS,7,C*]; A61L0027-14 [ICS,7]; A61L0027-00 [ICS,7,C*]; C08J0003-28 [ICS,7]; A61K0047-30 [ICS,7]; A61K0031-765 [ICS,7]
	IPCR	A61K0009-20 [I,A]; A61K0009-20 [I,C*]; A61K0031-74 [I,A]; A61K0031-74 [I,C*]; A61K0031-765 [I,A]; A61L0024-00 [I,A]; A61L0024-00 [I,C*]; A61L0024-04 [I,A]; A61L0026-00 [I,A]; A61L0026-00 [I,C*]; A61L0027-00 [I,C*]; A61L0027-18 [I,A]; A61L0027-52 [I,A]; A61L0027-58 [I,A]; A61L0031-04 [I,C*]; A61L0031-06 [I,A]; A61L0031-14 [I,A]; A61L0031-14 [I,C*]; C08L0071-00 [I,C*]; C08L0071-02 [I,A]
WO2002064189	IPCI	A61F0002-02 [ICM,7]; A61K0047-30 [ICS,7]
	IPCR	A61K0009-20 [I,A]; A61K0009-20 [I,C*]; A61K0031-74 [I,A]; A61K0031-74 [I,C*]; A61K0031-765 [I,A]; A61L0024-00 [I,A]; A61L0024-00 [I,C*]; A61L0024-04 [I,A]; A61L0026-00 [I,A]; A61L0026-00 [I,C*]; A61L0027-00 [I,C*]; A61L0027-18 [I,A]; A61L0027-52 [I,A]; A61L0027-58 [I,A]; A61L0031-04 [I,C*]; A61L0031-06 [I,A]; A61L0031-14 [I,A]; A61L0031-14 [I,C*]; C08L0071-00 [I,C*]; C08L0071-02 [I,A]
	ECLA	A61K009/20H6D; A61K031/765; A61L024/00H7; A61L026/00H7; A61L027/52; A61L031/14F
EP---1365704	IPCI	A61F0002-02 [ICM,7]; A61K0047-30 [ICS,7]
	IPCR	A61K0009-20 [I,A]; A61K0009-20 [I,C*]; A61K0031-74 [I,A]; A61K0031-74 [I,C*]; A61K0031-765 [I,A]; A61L0024-00 [I,A]; A61L0024-00 [I,C*]; A61L0024-04 [I,A]; A61L0026-00 [I,A]; A61L0026-00 [I,C*]; A61L0027-00 [I,C*]; A61L0027-18 [I,A]; A61L0027-52

		[I,A]; A61L0027-58 [I,A]; A61L0031-04 [I,C*]; A61L0031-06 [I,A]; A61L0031-14 [I,A]; A61L0031-14 [I,C*]; C08L0071-00 [I,C*]; C08L0071-02 [I,A]
BR2002007249	IPCI	A61F0002-02 [ICM,7]; A61K0047-30 [ICS,7]
	IPCR	A61K0009-20 [I,A]; A61K0009-20 [I,C*]; A61K0031-74 [I,A]; A61K0031-74 [I,C*]; A61K0031-765 [I,A]; A61L0024-00 [I,A]; A61L0024-00 [I,C*]; A61L0024-04 [I,A]; A61L0026-00 [I,A]; A61L0026-00 [I,C*]; A61L0027-00 [I,C*]; A61L0027-18 [I,A]; A61L0027-52 [I,A]; A61L0027-58 [I,A]; A61L0031-04 [I,C*]; A61L0031-06 [I,A]; A61L0031-14 [I,A]; A61L0031-14 [I,C*]; C08L0071-00 [I,C*]; C08L0071-02 [I,A]
CN---1496241	IPCI	A61F0002-02 [ICM,7]; A61K0047-30 [ICS,7]
	IPCR	A61K0009-20 [I,A]; A61K0009-20 [I,C*]; A61K0031-74 [I,A]; A61K0031-74 [I,C*]; A61K0031-765 [I,A]; A61L0024-00 [I,A]; A61L0024-00 [I,C*]; A61L0024-04 [I,A]; A61L0026-00 [I,A]; A61L0026-00 [I,C*]; A61L0027-00 [I,C*]; A61L0027-18 [I,A]; A61L0027-52 [I,A]; A61L0027-58 [I,A]; A61L0031-04 [I,C*]; A61L0031-06 [I,A]; A61L0031-14 [I,A]; A61L0031-14 [I,C*]; C08L0071-00 [I,C*]; C08L0071-02 [I,A]
	ECLA	A61K009/20H6D; A61K031/765; A61L024/00H7; A61L026/00H7; A61L027/52; A61L031/14F
JP2004520134	IPCI	A61L0031-00 [ICM,7]
	IPCR	A61K0009-20 [I,A]; A61K0009-20 [I,C*]; A61K0031-74 [I,A]; A61K0031-74 [I,C*]; A61K0031-765 [I,A]; A61L0024-00 [I,A]; A61L0024-00 [I,C*]; A61L0024-04 [I,A]; A61L0026-00 [I,A]; A61L0026-00 [I,C*]; A61L0027-00 [I,C*]; A61L0027-18 [I,A]; A61L0027-52 [I,A]; A61L0027-58 [I,A]; A61L0031-04 [I,C*]; A61L0031-06 [I,A]; A61L0031-14 [I,A]; A61L0031-14 [I,C*]; C08L0071-00 [I,C*]; C08L0071-02 [I,A]
	FTERM	4C081/AB11; 4C081/AB36; 4C081/AC06; 4C081/BA16; 4C081/CA05; 4C081/CA08; 4C081/CA18; 4C081/CC06

AB Radiation-crosslinked, biodegradable, synthetic hydrogels and their use in various applications, including certain medical applications wherein the hydrogel(s) are implanted on or in the body of a human or animal patient are described. Radiation-crosslinked, biodegradable, synthetic hydrogels of this invention may be prepared by irradiating monomers (e.g., ethylenically unsatd. hydrocarbons such as acrylic monomers and methacrylic monomers) or polymers, some or which are biodegradable or which contain biodegradable units or subunits. Specific medical applications of these radiation-crosslinked, biodegradable, synthetic hydrogels include applications wherein the hydrogel is used for hemostasis, tissue augmentation, tissue engineering, embolization, closure of vascular punctures or wounds and other medical applications. For example, a biodegradable PEG hydrogel was prepared from monomethoxypoly(ethylene glycol) (mPEG)-succinic acid-mPEG macromer. The mPEG dimer (17.05 g) was dissolved in 82.5 g of 50 mM sodium phosphate pH 5, the macromer solution was placed into syringes and the syringes were irradiated with 30 kGy of electron beam radiation.

ST polymer hydrogel radiation crosslinking biomedical

IT Body fluid
(absorption; radiation cross-linked polymer hydrogels for biomedical applications)

IT Animal tissue
(augmentation; radiation cross-linked polymer hydrogels for biomedical applications)

IT Adhesives

(biol. tissue; radiation cross-linked polymer hydrogels for biomedical applications)
IT Polymer degradation
(biol.; radiation cross-linked polymer hydrogels for biomedical applications)
IT Absorption
(body fluid; radiation cross-linked polymer hydrogels for biomedical applications)
IT Blood vessel
(closure of punctures of; radiation cross-linked polymer hydrogels for biomedical applications)
IT Wound
(closure; radiation cross-linked polymer hydrogels for biomedical applications)
IT Polymers, biological studies
RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(crosslinked; radiation cross-linked polymer hydrogels for biomedical applications)
IT Carboxylic acids, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(dicarboxylic, chlorides; radiation cross-linked polymer hydrogels for biomedical applications)
IT Polyoxyalkylenes, biological studies
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(dimers; radiation cross-linked polymer hydrogels for biomedical applications)
IT **Embolism**
(embolization; radiation cross-linked polymer hydrogels for biomedical applications)
IT Animal tissue
(engineering; radiation cross-linked polymer hydrogels for biomedical applications)
IT Syringes
(glass; radiation cross-linked polymer hydrogels for biomedical applications)
IT Drug delivery systems
(hydrogels; radiation cross-linked polymer hydrogels for biomedical applications)
IT Buffers
(phosphate; radiation cross-linked polymer hydrogels for biomedical applications)
IT Alcohols, biological studies
RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polyhydric, polymerized; radiation cross-linked polymer hydrogels for biomedical applications)
IT Dimerization
Electron beams
Hemostatics
Human
Hydrogels
(radiation cross-linked polymer hydrogels for biomedical applications)
IT Dimers
RL: RCT (Reactant); RACT (Reactant or reagent)
(radiation cross-linked polymer hydrogels for biomedical applications)
IT Containers

(radiation-permeable; radiation cross-linked polymer hydrogels for biomedical applications)
IT Crosslinking
Polymerization
(radiochem.; radiation cross-linked polymer hydrogels for biomedical applications)
IT **Medical goods**
(tissue adhesives; radiation cross-linked polymer hydrogels for biomedical applications)
IT Engineering
(tissue; radiation cross-linked polymer hydrogels for biomedical applications)
IT 7632-05-5, Sodium phosphate
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(buffer; radiation cross-linked polymer hydrogels for biomedical applications)
IT 121-44-8, Triethylamine, uses
RL: NUU (Other use, unclassified); USES (Uses)
(chloride scavenger; radiation cross-linked polymer hydrogels for biomedical applications)
IT 415901-92-7P
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(macromer; radiation cross-linked polymer hydrogels for biomedical applications)
IT 9004-74-4DP, Monomethoxypoly(ethylene glycol), dimers 25322-68-3DP, Poly(ethylene glycol), dimers 25322-69-4DP, Poly(propylene glycol), dimers
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(radiation cross-linked polymer hydrogels for biomedical applications)
IT 108-88-3, Toluene, uses
RL: NUU (Other use, unclassified); USES (Uses)
(radiation cross-linked polymer hydrogels for biomedical applications)
IT 543-20-4, Succinic chloride 2873-74-7, Pentanedioyl dichloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(radiation cross-linked polymer hydrogels for biomedical applications)
IT 7782-44-7, Oxygen, processes
RL: REM (Removal or disposal); PROC (Process)
(radiation cross-linked polymer hydrogels for biomedical applications)

L33 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2006 ACS on STN
AN **2002:171652** HCAPLUS
DN 136:236888
ED Entered STN: 08 Mar 2002
TI Nitric oxide-producing hydrogel materials
IN Hill-West, Jennifer L.; Masters, Kristyn Simcha
PA Rice University, USA
SO PCT Int. Appl., 69 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K-0009/00
CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 38
FAN.CNT 2
PATENT NO. KIND DATE APPLICATION NO. DATE

PI	WO2002017880	A2	20020307	2001WO-US27414	20010904
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	JP2002155137	A2	20020528	2001JP-0188905	20010521
	AU2001088694	A5	20020313	2001AU-0088694	20010904
	EP---1315476	A2	20030604	2001EP-0968448	20010904
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	US2003012816	A1	20030116	2002US-0129418	20020517 <--
	US---7052711	B2	20060530		
	US2006153795	A1	20060713	2005US-0281242	20051117 <--
PRAI	2000US-0653406	A	20000901		
	1999US-152054P	P	19990902 <--		
	2001WO-US27414	W	20010904		
	2002US-0129418	A3	20020517		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2002017880	ICM	A61K-0009/00
	IPCI	A61K0009-00 [ICM,7]
	IPCR	A61K0047-48 [I,A]; A61K0047-48 [I,C*]
	ECLA	A61K047/48H4P; A61K047/48K4; A61K047/48W4
JP2002155137	IPCI	C08G0065-334 [ICM,7]; A61K0045-00 [ICS,7]; A61K0045-06 [ICS,7]; A61P0009-08 [ICS,7]; A61P0009-10 [ICS,7]; A61P0009-00 [ICS,7,C*]; A61P0011-06 [ICS,7]; A61P0011-00 [ICS,7,C*]; A61P0015-10 [ICS,7]; A61P0015-00 [ICS,7,C*]; A61P0017-02 [ICS,7]; A61P0017-00 [ICS,7,C*]; A61P0019-02 [ICS,7]; A61P0019-00 [ICS,7,C*]; C08F0299-02 [ICS,7]; C08F0299-00 [ICS,7,C*]; C08G0065-333 [ICS,7]; C08G0065-00 [ICS,7,C*]
	IPCR	A61K0047-48 [I,A]; A61K0047-48 [I,C*]
AU2001088694	IPCI	A61K0009-00 [ICM,7]
	IPCR	A61K0047-48 [I,A]; A61K0047-48 [I,C*]
EP---1315476	IPCI	A61K0009-00 [ICM,7]
	IPCR	A61K0047-48 [I,A]; A61K0047-48 [I,C*]
US2003012816	IPCI	A61F0002-02 [I,A]; A61K0009-14 [I,A]
	IPCR	A61K0047-48 [I,A]; A61K0047-48 [I,C*]
	NCL	424/484.000
	ECLA	A61K047/48H4P; A61K047/48K4; A61K047/48W4
US2006153795	IPCI	A61K0031-765 [I,A]; A61K0031-74 [I,C*]; C08G0063-91 [I,A]; C08G0063-00 [I,C*]
	NCL	424/078.300; 525/054.100
	ECLA	A61K047/48H4P; A61K047/48K4; A61K047/48W4

AB Hydrogels releasing or producing NO, most preferably polymerizable biodegradable hydrogels capable of releasing physiol. amts. of NO for prolonged periods of time, are applied to sites on or in a patient in need of treatment thereof for disorders such as restenosis, thrombosis, asthma, wound healing, arthritis, penile erectile dysfunction or other conditions where NO plays a significant role. The polymeric materials can be formed

into films, coatings, or microparticles for application to medical devices, such as stents, vascular grafts and catheters. The polymeric materials can also be applied directly to biol. tissues and can be polymerized in situ. The hydrogels are formed of macromers, which preferably include biodegradable regions, and have bound thereto groups that are released in situ to elevate or otherwise modulate NO levels at the site where treatment is needed. The macromers can form a homo or hetero-dispersion or solution, which is polymerized to form a hydrogel material, that in the latter case can be a semi-interpenetrating network or interpenetrating network. Compds. to be released can be phys. entrapped, covalently or ionically bound to macromer, or actually form a part of the polymeric material. The hydrogel can be formed by ionic and/or covalent crosslinking. Other active agents, including therapeutic, prophylactic, or diagnostic agents, can also be included within the polymeric material. Acryloyl-PEG-Cys (preparation given) was reacted with sodium nitrite to form S-nitrosocysteine. The acryloyl-PEG-Cys-NO was incorporated into photopylymeizable hydrogel by mixing with PEG-diacrylate and an initiator and exposed to UV light. Adhesion of blood platelets which were incubated with the above hydrogel was decreased when exposed to thrombogenic surfaces (glass slides coated with collagen).

ST nitric oxide hydrogel polymer platelet adhesion inhibitor

IT Platelet (blood)
(adhesion, inhibitors; nitric oxide-producing hydrogel materials)

IT Diagnosis
(agents; nitric oxide-producing hydrogel materials)

IT Blood vessel
(artificial; nitric oxide-producing hydrogel materials)

IT **Medical goods**
(catheters; nitric oxide-producing hydrogel materials)

IT Blood vessel
(endothelium; nitric oxide-producing hydrogel materials)

IT Cell proliferation
(enhancers; nitric oxide-producing hydrogel materials)

IT Prosthetic materials and Prosthetics
(implants; nitric oxide-producing hydrogel materials)

IT Sexual disorders
(impotence; nitric oxide-producing hydrogel materials)

IT Adhesion, biological
Animal tissue
Arthritis
Asthma
Fibroblast
Hydrogels
Medical goods
Thrombosis
Wound healing
(nitric oxide-producing hydrogel materials)

IT Carbohydrates, biological studies
Nucleic acids
Proteins
RGD peptides
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(nitric oxide-producing hydrogel materials)

IT Artery, disease
(restenosis; nitric oxide-producing hydrogel materials)

IT **Medical goods**
(stents; nitric oxide-producing hydrogel materials)

IT Endothelium

(vascular; nitric oxide-producing hydrogel materials)
IT 52-90-4, Cysteine, reactions 111-40-0 7632-00-0, Sodium nitrite 19431-21-1 26570-48-9 262356-92-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(nitric oxide-producing hydrogel materials)
IT 616-91-1DP, reaction product with vinyl alc. copolymers 181798-26-5P 310460-40-3DP, S-nitrosylated 310460-40-3P 329191-28-8DP, nitrosylated 329191-28-8P 329191-29-9DP, nitrosylated 329191-29-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(nitric oxide-producing hydrogel materials)
IT 51209-75-7P 181798-26-5DP, nitrosylated, reaction product with N-acetyl-L-cysteine
RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(nitric oxide-producing hydrogel materials)
IT 9002-89-5, Polyvinyl alcohol 91037-65-9
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(nitric oxide-producing hydrogel materials)

L33 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2006 ACS on STN
AN **2001:100989** HCAPLUS
DN 134:144224
ED Entered STN: 09 Feb 2001
TI Direct arterial infiltration for production of vascular pathology
IN Edelman, Elazer R.; Rogers, Campbell; Welt, Frederick G.
PA Massachusetts Institute of Technology, USA
SO PCT Int. Appl., 10 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K-0035/00
CC 9-16 (Biochemical Methods)
Section cross-reference(s): 1, 14
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO2001008694	A2	20010208	2000WO-US20860	20000731 <--
	WO2001008694	A3	20010809		

W: CA, JP
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

PRAI 1999US-146622P P 19990730 <--
2000US-0627752 A 20000728

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2001008694	ICM	A61K-0035/00
	IPCI	A61K0035-00 [ICM,7]
	IPCR	A61K0035-14 [I,A]; A61K0035-14 [I,C*]; A61K0035-34 [I,A]; A61K0035-34 [I,C*]; A61K0038-17 [I,A]; A61K0038-17 [I,C*]; A61K0048-00 [N,A]; A61K0048-00 [N,C*]
	ECLA	A61K035/14; A61K035/34; A61K038/17A2

AB A method of producing a vascular lesion in an animal that resembles atherosclerosic lesions in humans. The method includes introducing cholesterol enriched with LDL or cholesterol enriched with LDL and monocytes, macrophages, leukocytes, smooth muscle cells or platelets into

a proliferative lesion created by standard methods, to promote atherosclerosis.

ST artery infiltration prodn vessel pathol

IT Surgery
(Balloon catheter inflation; direct arterial infiltration for production of vascular pathol.)

IT Diet
(Hyperlipidemic; direct arterial infiltration for production of vascular pathol.)

IT Air
(Insufflated; direct arterial infiltration for production of vascular pathol.)

IT Leukocyte
(Polymorphonucleur; direct arterial infiltration for production of vascular pathol.)

IT Polymers, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(co-; direct arterial infiltration for production of vascular pathol.)

IT Animal
Animal tissue
Artery
Artery, disease
Atherosclerosis
Basophil
Blood vessel, disease
Bone
Cardiovascular system
Cartilage
Cell
Cell adhesion
Cell migration
Cell proliferation
Chemicals
Coils
Diffusion
Digestive tract
Disease, animal
Drugs
Encapsulation
Eosinophil
Feeding
Filaments
Foams
Gels
Genetic engineering
Hydrogels
Inflammation
Leukocyte
Macrophage
Mitochondria
Monocyte
Nervous system
Osteoblast
Osteoclast
Platelet (blood)
Reproductive tract
Respiratory tract
Solutions

Susceptibility (genetic)
Temperature effects, biological
Thrombosis
Transformation, genetic
(direct arterial infiltration for production of vascular pathol.)

IT DNA
Oligonucleotides
Polysaccharides, biological studies
Prostaglandins
Proteins, general, biological studies
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(direct arterial infiltration for production of vascular pathol.)

IT Fats and Glyceridic oils, biological studies
Glycerides, biological studies
Lipids, biological studies
Lipopolysaccharides
Polymers, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(direct arterial infiltration for production of vascular pathol.)

IT Blood vessel
(endothelium; direct arterial infiltration for production of vascular pathol.)

IT Compression
(external; direct arterial infiltration for production of vascular pathol.)

IT Lipids, biological studies
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(hyperlipidemia; direct arterial infiltration for production of vascular pathol.)

IT Animal tissue
(hyperplasia; direct arterial infiltration for production of vascular pathol.)

IT Prosthetic materials and Prosthetics
(implants; direct arterial infiltration for production of vascular pathol.)

IT Energy
(injury; direct arterial infiltration for production of vascular pathol.)

IT Blood vessel, disease
(lesion; direct arterial infiltration for production of vascular pathol.)

IT Wires
(loops; direct arterial infiltration for production of vascular pathol.)

IT Lipoproteins
RL: ANT (Analyte); ANST (Analytical study)
(low-d.; direct arterial infiltration for production of vascular pathol.)

IT Muscle
(smooth; direct arterial infiltration for production of vascular pathol.)

IT **Medical goods**
(stents, Endovascular; direct arterial infiltration for production of vascular pathol.)

IT Electric current
(stimulation; direct arterial infiltration for production of vascular pathol.)

IT Diet
(supplements; direct arterial infiltration for production of vascular pathol.)

IT 57-88-5, Cholesterol, biological studies 60-00-4, EDTA, biological studies 9005-32-7, Alginic acid 24937-78-8 26009-03-0, Poly(glycolic acid) 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6, Poly(lactic acid) 26124-68-5, Poly(glycolic acid) 106392-12-5,

Pluronic
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(direct arterial infiltration for production of vascular pathol.)

L33 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2006 ACS on STN
AN **2000:841940** HCAPLUS
DN 134:21447
ED Entered STN: 01 Dec 2000
TI Methods for delivering in vivo uniform dispersed embolic compositions of high viscosity
IN Tran, Chinh Ngoc; Hayman, Douglas Ray; Whalen, Tom, II
PA Micro Therapeutics, Inc., USA
SO PCT Int. Appl., 28 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61F-0013/00
ICS C08J-0003/00; A61K-0009/10; A61M-0031/00
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO2000071064	A1	20001130	2000WO-US13719	20000519 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA---2371915	AA	20001130	2000CA-2371915	20000519 <--
	EP---1185223	A1	20020313	2000EP-0936066	20000519 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US---6454738	B1	20020924	2000US-0574963	20000519 <--
	JP2003500106	T2	20030107	2000JP-0619376	20000519 <--
	US---6645167	B1	20031111	2000US-0574500	20000519 <--
	US2004097901	A1	20040520	2003US-0705108	20031110 <--
PRAI	1999US-135222P	P	19990521	<--	
	1999US-135289P	P	19990521	<--	
	2000US-0574500	A1	20000519		
	2000WO-US13719	W	20000519		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2000071064	ICM	A61F-0013/00
	ICS	C08J-0003/00; A61K-0009/10; A61M-0031/00
	IPCI	A61F0013-00 [ICM,7]; C08J0003-00 [ICS,7]; A61K0009-10 [ICS,7]; A61M0031-00 [ICS,7]
	IPCR	A61K0049-04 [I,A]; A61K0049-04 [I,C*]; A61L0024-00 [I,A]; A61L0024-00 [I,C*]; A61L0024-04 [I,A]; A61L0024-06 [I,A]; A61L0024-08 [I,A]; C08J0003-02 [I,C*]; C08J0003-09 [I,A]
	ECLA	A61K049/04F8M; A61L024/00H; A61L024/04R; A61L024/06; A61L024/06+C08L29/04; A61L024/08; C08J003/09B

CA---2371915	IPCI	A61F0013-00 [ICM,7]; C08J0003-00 [ICS,7]; A61M0031-00 [ICS,7]; A61K0009-10 [ICS,7]
	IPCR	A61K0049-04 [I,A]; A61K0049-04 [I,C*]; A61L0024-00 [I,A]; A61L0024-00 [I,C*]; A61L0024-04 [I,A]; A61L0024-06 [I,A]; A61L0024-08 [I,A]; C08J0003-02 [I,C*]; C08J0003-09 [I,A]
EP---1185223	IPCI	A61F0013-00 [ICM,6]; C08J0003-00 [ICS,6]; A61K0009-10 [ICS,6]; A61M0031-00 [ICS,6]
	IPCR	A61K0049-04 [I,A]; A61K0049-04 [I,C*]; A61L0024-00 [I,A]; A61L0024-00 [I,C*]; A61L0024-04 [I,A]; A61L0024-06 [I,A]; A61L0024-08 [I,A]; C08J0003-02 [I,C*]; C08J0003-09 [I,A]
US---6454738	IPCI	A61M0031-00 [ICM,7]
	IPCR	A61L0024-00 [I,A]; A61L0024-00 [I,C*]; A61L0024-04 [I,A]; A61L0024-06 [I,A]; A61L0024-08 [I,A]
	NCL	604/500.000; 424/009.411; 424/078.370; 424/423.000; 424/484.000; 514/002.000; 514/021.000; 604/030.000
	ECLA	A61L024/00H; A61L024/04R; A61L024/06; A61L024/06+C08L29/04; A61L024/08
JP2003500106	IPCI	A61B0017-12 [ICM,7]; A61B0017-00 [ICS,7]; A61K0049-04 [ICS,7]; A61L0031-00 [ICS,7]; A61M0005-44 [ICS,7]; A61M0025-00 [ICS,7]
	IPCR	A61K0049-04 [I,A]; A61K0049-04 [I,C*]; A61L0024-00 [I,A]; A61L0024-00 [I,C*]; A61L0024-04 [I,A]; A61L0024-06 [I,A]; A61L0024-08 [I,A]; C08J0003-02 [I,C*]; C08J0003-09 [I,A]
US---6645167	IPCI	A61F0002-00 [ICM,7]; A61M0001-00 [ICS,7]; A61M0029-00 [ICS,7]
	IPCR	A61K0009-00 [I,A]; A61K0009-00 [I,C*]; A61K0049-04 [I,A]; A61K0049-04 [I,C*]; A61L0024-00 [I,A]; A61L0024-00 [I,C*]; A61L0024-04 [I,A]; A61L0024-06 [I,A]; A61L0024-08 [I,A]; A61M0005-315 [I,A]; A61M0005-315 [I,C*]; C08J0003-02 [I,C*]; C08J0003-09 [I,A]
	NCL	604/028.000; 424/423.000; 523/113.000; 604/096.010
	ECLA	A61K009/00M5D; A61K049/04F8M; A61L024/00H; A61L024/04R; A61L024/06; A61L024/06+C08L29/04; A61L024/08; A61M005/315D1; C08J003/09B
US2004097901	IPCI	A61M0031-00 [ICM,7]
	IPCR	A61K0009-00 [I,A]; A61K0009-00 [I,C*]; A61K0049-04 [I,A]; A61K0049-04 [I,C*]; A61L0024-00 [I,A]; A61L0024-00 [I,C*]; A61L0024-04 [I,A]; A61L0024-06 [I,A]; A61L0024-08 [I,A]; A61M0005-315 [I,A]; A61M0005-315 [I,C*]; C08J0003-02 [I,C*]; C08J0003-09 [I,A]
	NCL	604/509.000
	ECLA	A61K009/00M5D; A61K049/04F8M; A61L024/00H; A61L024/04R; A61L024/06; A61L024/06+C08L29/04; A61L024/08; A61M005/315D1; C08J003/09B

AB Disclosed are novel techniques for embolizing blood vessels which are particularly suited for treating vascular lesions via catheter delivery of an embolic composition An embolic composition contained Et vinyl alc. copolymer (mol. weight approx. 136,000) 17.5, micronized tantalum 30, and DMSO 52.5%. The composition was used for treatment of venous pouch aneurysm in swine.

ST embolism viscosity blood vessel catheter

IT Polymers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(biocompatible; methods for delivering in vivo uniform dispersed

embolic compns. of high viscosity)
IT **Medical goods**
(catheters; methods for delivering in vivo uniform dispersed embolic compns. of high viscosity)
IT Imaging agents
(contrast; methods for delivering in vivo uniform dispersed embolic compns. of high viscosity)
IT **Embolism**
(embolization; methods for delivering in vivo uniform dispersed embolic compns. of high viscosity)
IT Blood vessel, disease
(lesion; methods for delivering in vivo uniform dispersed embolic compns. of high viscosity)
IT Aneurysm
Blood vessel
Hydrogels
Viscosity
(methods for delivering in vivo uniform dispersed embolic compns. of high viscosity)
IT Urethane rubber, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polycarbonate-; methods for delivering in vivo uniform dispersed embolic compns. of high viscosity)
IT Synthetic rubber, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polycarbonate-polyurethane; methods for delivering in vivo uniform dispersed embolic compns. of high viscosity)
IT 64-17-5, Ethanol, uses 67-64-1, Acetone, uses 67-68-5, Dimethylsulfoxide, uses 97-64-3, Ethyl lactate
RL: NUU (Other use, unclassified); USES (Uses)
(methods for delivering in vivo uniform dispersed embolic compns. of high viscosity)
IT 1314-61-0, Tantalum oxide 7440-25-7, Tantalum, biological studies 7440-33-7, Tungsten, biological studies 7727-43-7, Barium sulfate 9004-35-7, Cellulose acetate 9004-36-8, Cellulose acetate butyrate 9004-70-0, Nitrocellulose 25014-41-9, Polyacrylonitrile 25067-34-9, Ethylene vinyl alcohol copolymer 25300-64-5, Maleic acid styrene copolymer
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(methods for delivering in vivo uniform dispersed embolic compns. of high viscosity)
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Greff; US---5667767 A 1997 HCAPLUS
(2) Ji; US---5888546 A 1999 HCAPLUS
(3) Ji; US---5894022 A 1999 HCAPLUS
(4) Jones; US---5830178 A 1998
(5) Micro Therapeutics Inc; WO---9804312 1998 HCAPLUS
(6) Micro Therapeutics Inc; WO---9920326 1999

L33 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2006 ACS on STN
AN **1995:692845** HCAPLUS
DN 123:123043
ED Entered STN: 21 Jul 1995
TI Resorbable hydrogel barriers for controlling intravascular thrombosis and healing
AU Hill-West, Jennifer L.; Chowdhury, Sanghamitra M.; Slepain, Marvin J.; Hubbell, Jeffrey A.
CS Univ. Texas, Austin, Austin, TX, 78712, USA

SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (**1994**), 35(2), 397-8
CODEN: ACPPAY; ISSN: 0032-3934
PB American Chemical Society, Division of Polymer Chemistry
DT Journal
LA English
CC 63-7 (Pharmaceuticals)
AB A non-pharmacol. approach for the prevention of restenosis by using a resorbable PEG-based polymer hydrogel is presented.
ST polymer hydrogel intravascular thrombosis healing
IT **Medical goods**
(barriers; resorbable hydrogel barriers for controlling intravascular thrombosis and healing)
IT **Thrombosis**
(intravascular; resorbable hydrogel barriers for controlling intravascular thrombosis and healing)
IT Wound healing
(resorbable hydrogel barriers for controlling intravascular thrombosis and healing)
IT Polymers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(resorbable hydrogel barriers for controlling intravascular thrombosis and healing)
IT **Gels**
(**hydro-**, resorbable hydrogel barriers for controlling intravascular thrombosis and healing)
IT Artery, disease
(restenosis, prevention; resorbable hydrogel barriers for controlling intravascular thrombosis and healing)

L33 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2006 ACS on STN
AN **1994:264829** HCAPLUS
DN 120:264829
ED Entered STN: 28 May 1994
TI Crosslinked protein or polysaccharide hydrogels, their preparation, and their use in imaging and therapy
IN Weissleder, Ralph; Bogdanov, Alexei
PA General Hospital Corp., USA
SO PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K-0009/10
CC 8-9 (Radiation Biochemistry)
Section cross-reference(s): 63
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO---9403155	A1	19940217	1993WO-US07314	19930804 <--
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US---5514379	A	19960507	1992US-0927068	19920807 <--
PRAI 1992US-0927068	A	19920807 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9403155	ICM	A61K-0009/10
	IPCI	A61K0009-10 [ICM,5]
	IPCR	A61K0009-16 [I,A]; A61K0009-16 [I,C*]; A61K0047-42

		[I,A]; A61K0047-42 [I,C*]; A61K0049-06 [I,C*]; A61K0049-18 [I,A]
US---5514379	IPCI	A61K0009-10 [ICM,6]; A61K0049-00 [ICS,6]; A61K0049-04 [ICS,6]
	IPCR	A61K0009-16 [I,A]; A61K0009-16 [I,C*]; A61K0047-42 [I,A]; A61K0047-42 [I,C*]; A61K0049-06 [I,C*]; A61K0049-18 [I,A]
	NCL	424/426.000; 424/009.364; 424/484.000; 424/486.000; 424/488.000; 514/944.000; 516/102.000; 516/103.000; 516/105.000; 516/106.000
	ECLA	A61K009/16H6H; A61K047/42; A61K049/18F

AB Biocompatible, biodegradable hydrogels are prepared from a backbone compound (proteins and polysaccharides, e.g., albumin, polymannuronic acid, or polygalacturonic acid.) bonded to a crosslinking agent. Suitable crosslinking agents include polyvalent derivs. of polyethylene or polyalkylene glycol. These hydrogel compns. may be loaded with diagnostic labels, e.g., radiopaque, paramagnetic, or superparamagnetic materials, or therapeutic drugs, e.g., chemotherapeutic drugs, antibiotics, or cells that produce therapeutic agents. Such hydrogels are used for imaging, treatment, and embolization. Bis(N-hydroxysuccinimidyl)polyethylene glycol disuccinate was prepared and reacted with bovine serum albumin (BSA) and Gd-DTPA-BSA to form a paramagnetic hydrogel. The hydrogel was implanted in rats and the dissoln. was observed by repeated magnetic resonance imaging. Peritoneally implanted samples degraded faster than i.m. implanted samples.

ST hydrogel protein polysaccharide crosslinking agent imaging; albumin PEG gadolinium hydrogel MRI; therapy hydrogel protein polysaccharide

IT Crosslinking agents
(biocompatible and biodegradable hydrogel containing protein or polysaccharide backbone bonded to, for imaging and therapy)

IT Cell
(crosslinked protein or polysaccharide hydrogel loaded with)

IT Therapeutics
(crosslinked protein or polysaccharide hydrogel loaded with cells producing agents for)

IT Analgesics
Antibiotics
Cardiovascular agents
Hemostatics
Neoplasm inhibitors
Nervous system agents
Enzymes
Hormones
RL: BIOL (Biological study)
(crosslinked protein or polysaccharide hydrogel with)

IT Hematopoiesis
(crosslinked protein or polysaccharide hydrogel with agents for)

IT Pharmaceuticals
(crosslinked protein or polysaccharide hydrogel with reporter group of)

IT Diagnosis
(crosslinked protein or polysaccharide hydrogels for use in)

IT Neoplasm, toxic chemical and physical damage
(embolization of, with hydrogel of PEG derivative-crosslinked albumin)

IT Imaging
(NMR, crosslinked protein or polysaccharide hydrogel with detectable label for)

IT **Medical goods**
(catheters, angiog., coated with paramagnetic hydrogel for magnetic resonance imaging)

IT **Embolism**
(embolization, crosslinked protein or polysaccharide hydrogels for use in)
IT **Gels**
(**hydro**-, biocompatible and biodegradable, of protein or polysaccharide backbone bonded to crosslinking agent, for imaging and therapy)
IT Pharmaceutical dosage forms
(hydrogels, crosslinked protein or polysaccharide for)
IT Polyamides, compounds
RL: BIOL (Biological study)
(poly(amino acids), reaction products, with crosslinking agent, biocompatible and biodegradable hydrogel containing, for imaging and therapy)
IT Hormones
RL: BIOL (Biological study)
(pro-, crosslinked protein or polysaccharide hydrogel with)
IT Albumins, compounds
Glycoproteins, specific or class
Glycosaminoglycans, compounds
Polymers, compounds
Polysaccharides, compounds
Proteins, specific or class
RL: BIOL (Biological study)
(reaction products, with crosslinking agent, biocompatible and biodegradable hydrogel containing, for imaging and therapy)
IT Polyoxyalkylenes, compounds
RL: BIOL (Biological study)
(reaction products, with protein or polysaccharide backbone, biocompatible and biodegradable hydrogel containing, for imaging and therapy)
IT Imaging
(x-ray, crosslinked protein or polysaccharide hydrogel with detectable label for)
IT 9002-98-6D, Polyethyleneimine, reaction products with crosslinking agent 9004-54-0D, Dextran, derivs., reaction products with crosslinking agent 9005-25-8D, Starch, derivs., reaction products with crosslinking agent 9046-38-2D, Polygalacturonic acid, reaction products with crosslinking agent 25322-68-3D, Polyoxyethylene glycol, derivs., reaction products with protein or polysaccharide backbone 25322-68-3D, Polyethylene glycol, halide- and benzoxazole-terminated derivs., reaction products with crosslinking agent 25322-69-4D, Polypropylene glycol, derivs., reaction products with protein or polysaccharide backbone 29894-36-8D, Polymannuronic acid, reaction products with crosslinking agent 35625-91-3D, reaction products with protein or polysaccharide backbone 154623-96-8D, reaction products with protein or polysaccharide backbone 154623-97-9D, reaction products with protein or polysaccharide backbone 154623-98-0D, reaction products with protein or polysaccharide backbone 154623-99-1D, reaction products with protein or polysaccharide backbone 154624-00-7D, reaction products with protein or polysaccharide backbone
RL: BIOL (Biological study)
(biocompatible and biodegradable hydrogel containing, for imaging and therapy)
IT 9004-10-8, Insulin, uses
RL: USES (Uses)
(crosslinked protein or polysaccharide hydrogel loaded with cells producing)
IT 20694-16-0, Gadolinium-DTPA 7440-54-2, Gadolinium, uses
RL: BIOL (Biological study)

(crosslinked protein or polysaccharide hydrogel with detectable label of, for magnetic resonance imaging)
IT 7553-56-2, Iodine, uses
RL: USES (Uses)
(crosslinked protein or polysaccharide hydrogel with detectable label of, for x-ray imaging)
IT 9005-38-3, Sodium alginate
RL: BIOL (Biological study)
(paramagnetic hydrogel containing bivalent PEG derivative-crosslinked)
IT 23214-92-8P, Doxorubicin
RL: SPN (Synthetic preparation); PREP (Preparation)
(paramagnetic hydrogel of albumin-gadolinium-DTPA-albumin with, preparation of)
IT 37684-51-8P, Polyethylene glycol disuccinate
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, in preparation of paramagnetic hydrogel)
IT 85419-94-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with albumin and albumin-gadolinium DTPA conjugate, in preparation of paramagnetic hydrogel)
IT 20694-16-0DP, Gadolinium-DTPA, reaction products with albumin and PEG derivative
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as paramagnetic hydrogel)
IT 737-31-5P, Sodium diatrizoate
RL: SPN (Synthetic preparation); PREP (Preparation)
(radiopaque crosslinked hydrogel of albumin-gadolinium-DTPA-albumin and, preparation of)
IT 108-30-5, Succinic anhydride, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with PEG)
IT 23911-26-4, Cyclic DTPA anhydride
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with bovine serum albumin)
IT 25322-68-3, Polyethylene glycol
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with succinic anhydride)
IT 123119-57-3
RL: BIOL (Biological study)
(sodium alginate crosslinked with, paramagnetic hydrogel containing)

L33 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2006 ACS on STN
AN **1992:537624** HCAPLUS
DN 117:137624
ED Entered STN: 04 Oct 1992
TI Hemostatic activity of ethamsylate and aminocaproic acid adsorbed poly(2-hydroxyethyl methacrylate) particles
AU Horak, Daniel; Svec, Frantisek; Adamyan, A.; Titova, M.; Skuba, N.; Voronkova, O.; Trostenyuk, N.; Vishnevskii, V.; Gumargalieva, K.
CS Inst. Macromol. Chem., Czech. Acad. Sci., Prague, 162 06, Czech.
SO Biomaterials (**1992**), 13(8), 521-6
CODEN: BIMADU; ISSN: 0142-9612
DT Journal
LA English
CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 1
AB A hemostatic material suitable for embolization was prepared by the

adsorption of hemostatics, ethamsylate and aminocaproic acid, in the spherical particles of porous poly(2-hdyroxyethyl methacrylate) [p(HEMA)]. The degree of purification of ethamsylate-treated particles was tested by an anal. of donor blood in contact with the material. An evaluation of the hemostatic properties of these materials was obtained by the determination of the indicators of blood clotting: activated partial thromboplastin time, thrombin time, and prothrombin time. Ethamsylate or aminocaproic acid-containing p(HEMA) has a distinct hemostatic effect on pathol. blood of patients suffering from focal alterations of the liver. These hemostatic emboli materials show promise for the immediate control of various hemorrhages; when introduced into a zone with increased hemorrhage, they may help to correct disturbed hemostasis.

ST ethamsylate aminocaproate polymethacrylate hydrogel hemostatic embolization

IT Artery
(embolization of, poly(hydroxyethyl methacrylate) hydrogel containing ethamsylate or aminocaproate for)

IT Hemostatics
(ethamsylate and aminocaproate in poly(hydroxyethyl methacrylate) hydrogels, for embolization)

IT Blood coagulation
(poly(hydroxyethyl methacrylate) hydrogels containing ethamsylate or aminocaproate for, by embolization)

IT **Medical goods**
(dressings, hemostatic, poly(hydroxyethyl methacrylate) hydrogels containing ethamsylate or aminocaproate for, for embolization)

IT **Embolism**
(embolization, poly(hydroxyethyl methacrylate) hydrogels containing ethamsylate or aminocaproate for)

IT **Gels**
(**hydro**-, poly(hydroxyethyl methacrylate), ethamsylate- or aminocaproate-containing, hemostatic activity of, for embolization)

IT 25249-16-5, Poly(2-hydroxyethyl methacrylate)
RL: BIOL (Biological study)
(hydrogels, ethamsylate- or aminocaproate-containing, hemostatic activity of, for embolization)

IT 1319-82-0, Aminocaproic acid 2624-44-4, Ethamsylate
RL: BIOL (Biological study)
(poly(hydroxyethyl methacrylate) hydrogel containing, hemostatic activity of, for embolization)

=> b wpix
FILE 'WPIX' ENTERED AT 15:34:53 ON 15 AUG 2006

FILE LAST UPDATED: 14 AUG 2006 <20060814/UP>
MOST RECENT DERWENT UPDATE: 200652 <200652/DW>
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http://www.stn-international.de/stndatabases/details/ipc_reform.html and
http://scientific.thomson.com/media/scpdf/ipcrdwpi.pdf <<<

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INDEX ENHANCEMENTS PLEASE VISIT:
http://www.stn-international.de/stndatabases/details/dwpi_r.html <<<
'BIX' IS DEFAULT SEARCH FIELD FOR 'WPIX' FILE

=> d all abex tech l44 tot

L44 ANSWER 1 OF 13 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
AN **2006-492530** [50] WPIX
CR 2001-343247 [36]; 2002-691223 [74]; 2003-266113 [26]; 2004-339065 [31]
DNN N2006-397580 DNC C2006-154124
TI Embolization device manufacturing method for treatment of vascular aneurysms, involves coaxially encapsulating portion of length of filamentous carrier in expansile hydrophilic polymer.
DC A32 A96 D22 P31
IN CONSTANT, M; COX, B J; CRUISE, G M; GREENE, G R; TRAN, T
PA (MICR-N) MICROVENTION INC
CYC 1
PI US--2006149299 A1 20060706 (200650)* 29 A61B-017-03
ADT US--2006149299 A1 **CIP of 1999US-0410970 19991004**, CIP of 2000US-0542145 20000404, CIP of 2001US-0867340 20010529, **Div ex 2002US-0157621 20020529**, 2006US-0350357 20060208
FDT US--2006149299 A1 CIP of US-----6238403, CIP of US-----6299619, CIP of US-----6602261, Div ex US-----7014645
PRAI **2002US-0157621 20020529**; **1999US-0410970 19991004**; 2000US-0542145 20000404; 2001US-0867340 20010529; 2006US-0350357 20060208
IC ICM A61B-017-03; A61B-017-08
AB US2006149299 A UPAB: 20060804
NOVELTY - The method involves providing elongated flexible filamentous carrier, and coaxially encapsulating portion of the length of the carrier in an expansile hydrophilic polymer set in softened state.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for method for delivering therapeutic agent to patient.

USE - For manufacturing embolization device used for treatment of vascular aneurysms, arteriovenous malformation and arteriovenous fistulas, tumor and other soft tissue voids. The device is also used for occluding body cavity and blood vessel for therapeutic benefit of patient, and fallopian tubes for the purpose of sterilization, and also for occlusive repair of cardiac defects such as patent foramen ovale, patent ductus arteriosis and left-atrial-appendage and atrial-septal defects.

ADVANTAGE - Vascular embolization device can be deployed within cavity or vascular site with excellent locational control and with a lower risk of vascular rupture, tissue damage or migration. The device effects a conformal fit within the site that promotes effective embolization of body cavities having different size and configuration.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic view of vascular embolization device.

vascular embolization device 10
micropellets 12
spacers 16
microcoil segment 18
hydrogel linkage element 24
Dwg.1/44
FS CPI GMPI
FA AB; GI

MC CPI: A11-B05; A12-V02; A12-W05; D09-C01B

L44 ANSWER 2 OF 13 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
AN **2004-339065** [31] WPIX
CR 2001-343247 [36]; 2002-691223 [74]; 2003-266113 [26]; 2006-492530 [50]
DNN N2004-271032 DNC C2004-128684
TI Manufacture of body cavity occlusion device for delivering therapeutic agent to patient involves coaxially encapsulating portion of carrier in expansible, hydrophilic polymer.
DC A96 B07 D22 P34
IN CONSTANT, M; COX, B J; CRUISE, G M; GREENE, G R; TRAN, T
PA (CONS-I) CONSTANT M; (COXB-I) COX B J; (CRUI-I) CRUISE G M; (GREE-I) GREENE G R; (TRAN-I) TRAN T
CYC 1
PI US--2004059370 A1 20040325 (200431)* 29 A61M-029-00 <--
ADT US--2004059370 A1 **CIP of 1999US-0410970 19991004**, CIP of 2000US-0542145 20000404, CIP of 2001US-0867340 20010529, **Cont of 2002US-0157621 20020529, 2003US-0670142 20030924**
FDT US--2004059370 A1 CIP of US-----6238403, CIP of US-----6299619, CIP of US-----6602261
PRAI **2002US-0157621 20020529; 1999US-0410970 19991004**; 2000US-0542145 20000404; 2001US-0867340 20010529; **2003US-0670142 20030924**
IC ICM A61M-029-00
AB US2004059370 A UPAB: 20060804
NOVELTY - A body cavity occlusion device (10) is manufactured by providing an elongated, flexible, filamentous carrier; and coaxially encapsulating a portion of the length of the carrier in an expansible, hydrophilic polymer.

USE - The invention is used for manufacture of body cavity occlusion device for delivering a therapeutic agent to a patient by disposing the agent in the axial reservoir of the device; and embolizing a body cavity of the patient with the device (claimed).

ADVANTAGE - The invented method can fill aneurysms and other body cavities of a target range of sizes, configurations and neck widths with an occlusive and/or thrombogenic medium with a minimal risk of inadvertent tissue damage, aneurysm rupture or blood vessel wall damage. It also allows for the precise locational deployment of the medium while minimizing the potential for migration away from the target location.

DESCRIPTION OF DRAWING(S) - The figure is an elevational view of a vascular embolization device.

Device(12) Micropellet 10
Spacers 16
Segment 18
Retention member 20
Dwg.1/43
FS CPI GMPI
FA AB; GI
MC CPI: A12-V03D; B11-C04; D09-C04
TECH UPTX: 20040514
TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred Method: The carrier is encapsulated by providing an elongated member of the polymer in a softened state; and skewering the member coaxially with the carrier. The elongated member is provided by inserting the member into a tubular holder such that the member is radially confined and axially restrained in the member. An axial reservoir is formed in the lumen by inserting an elongated mandrel into the lumen of the carrier before its encapsulation; and removing the mandrel from the lumen of the carrier after its encapsulation. The polymer is dehydrated to shrink it by immersing the

device in a hygroscopic medium or by heating the device. It has a rate of hydration in an aqueous medium that is a function of a physical parameter of the medium. The rate of hydration of the polymer is set in response to the parameter and is adjusted by treating the polymer with an acid. The device is immersed for a period of time in an aqueous medium having the physical parameter. The period of time and the physical parameter of the medium are selected to soften the polymer and render it lubricious without expanding it. Preferred Component: The carrier includes an axial, lumen. Preferred Dimension: An unsupported end of a portion of the device deflects downward under the weight of the portion and relative to an opposite, supported end of the portion of 0.75 inches when: the hydrogel is in a dry state and a horizontal distance between the opposite ends of the portion is more than 2.25 inches. The hydrogel is in a moderately hydrated state and the horizontal length is 1.5-2.25 inches and the hydrogel is in a fully hydrated stated and the horizontal length is less than 1.5 inches.

L44 ANSWER 3 OF 13 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
AN **2003-266113** [26] WPIX
CR 2001-343247 [36]; 2002-691223 [74]; 2004-339065 [31]; 2006-492530 [50]
DNN N2003-211320
TI Vascular embolization device manufacturing method involves coaxially encapsulating filamentous carrier in expansile, hydrophilic polymer.
DC P31 P32
IN CONSTANT, M; COX, B J; CRUISE, G M; GREENE, G R; TRAN, T
PA (MICR-N) MICROVENTION INC; (CONS-I) CONSTANT M; (COXB-I) COX B J; (CRUI-I) CRUISE G M; (GREE-I) GREENE G R; (TRAN-I) TRAN T
CYC 101
PI US--2002177855 A1 20021128 (200326)* 29 A61F-011-00
WO---200296302 A1 20021205 (200326) EN A61B-017-12
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW
EP-----1401338 A1 20040331 (200424) EN A61B-017-12
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR
AU--2002344223 A1 20021209 (200452) A61B-017-12
JP--2004527342 W 20040909 (200459) 93 A61B-017-12
US-----7014645 B2 20060321 (200621) A61B-017-03 <--
ADT US--2002177855 A1 **CIP of 1999US-0410970 19991004**, CIP of 2000US-0542145 20000404, CIP of 2001US-0867340 20010529, **2002US-0157621 20020529**; WO---200296302 A1 2002WO-US16873 20020529; EP-----1401338 A1 2002EP-0752008 20020529, 2002WO-US16873 20020529; AU--2002344223 A1 2002AU-0344223 20020529; JP--2004527342 W 2002JP-0592820 20020529, 2002WO-US16873 20020529; US-----7014645 B2 **CIP of 1999US-0410970 19991004**, CIP of 2000US-0542145 20000404, CIP of 2001US-0867340 20010529, **2002US-0157621 20020529**
FDT US--2002177855 A1 CIP of US-----6238403, CIP of US-----6299619; EP-----1401338 A1 Based on WO---200296302; AU--2002344223 A1 Based on WO---200296302; JP--2004527342 W Based on WO---200296302; US-----7014645 B2 CIP of US-----6238403, CIP of US-----6299619, CIP of US-----6602261
PRAI **2002US-0157621 20020529**; **1999US-0410970 19991004**; 2000US-0542145 20000404; 2001US-0867340 20010529
IC ICM A61B-017-03; A61B-017-08; A61B-017-12; A61F-011-00
ICS B29C-070-74

AB US2002177855 A UPAB: 20060804
NOVELTY - The carrier made of thin filament of a suitable polymer is coaxially encapsulated in expansile, hydrophilic polymer such as polyvinyl alcohol (PVA).
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:
(1) method for delivering therapeutic agent to patient; and
(2) embolization device.
USE - For manufacturing vascular embolization device (claimed) used in embolization of vascular aneurysms, during treatment of vascular anomalies, such as arteriovenous malformations and arteriovenous fistulas. Also, used for occlusion of fallopian tubes for sterilization, treating cardiac defects like foramen ovale, ductus arteriosis, left-atrial-appendage and atrial-septal defects.
ADVANTAGE - The embolization device can be placed within the cavity with excellent locational control, lower risk of vascular rupture, tissue damage. Embolizes body cavities having a wide variety of sizes, configurations and neck widths.
Dwg.0/44
FS GMPI
FA AB

L44 ANSWER 4 OF 13 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
AN **2002-691223** [74] WPIX
CR 2001-343247 [36]; 2003-266113 [26]; 2004-339065 [31]; 2006-492530 [50]
DNN N2002-545343
TI Vascular embolization device has micropellets fixed at spaced intervals to exterior surface of carrier along substantial portion of length of carrier proximally from distal tip.
DC P31 P32
IN CONSTANT, M; COX, B J; CRUISE, G M; GREENE, G R; TRAN, T
PA (MICR-N) MICROVENTION INC; (CONS-I) CONSTANT M; (COXB-I) COX B J; (CRUI-I) CRUISE G M; (GREE-I) GREENE G R; (TRAN-I) TRAN T
CYC 3
PI US--2002120276 A1 20020829 (200274)* 19 A61F-002-06
US-----6602261 B2 20030805 (200353) A61F-011-00 <--
AU--2002344223 A1 20021209 (200452) A61B-017-12
JP--2004527342 W 20040909 (200459) 93 A61B-017-12
ADT US--2002120276 A1 **CIP of 1999US-0410970 19991004**, CIP of 2000US-0542145 20000404, 2001US-0867340 20010529; US-----6602261 B2 **CIP of 1999US-0410970 19991004**, CIP of 2000US-0542145 20000404, 2001US-0867340 20010529; AU--2002344223 A1 2002AU-0344223 20020529; JP--2004527342 W 2002JP-0592820 20020529, 2002WO-US16873 20020529
FDT US--2002120276 A1 CIP of US-----6238403; US-----6602261 B2 CIP of US-----6238403, CIP of US-----6299619; AU--2002344223 A1 Based on WO---200296302; JP--2004527342 W Based on WO---200296302
PRAI 2001US-0867340 20010529; **1999US-0410970 19991004**; 2000US-0542145 20000404; **2002US-0157621 20020529**
IC ICM A61B-017-12; A61F-002-06; A61F-011-00
ICS B29C-070-74
AB US2002120276 A UPAB: 20060804
NOVELTY - The device (10) includes a flexible, filamentous carrier having a distal tip and an exterior surface. Elongated continuous, coaxial micropellets (12) are fixed at spaced intervals to the exterior surface of the carrier along a substantial portion of the length of the carrier proximally from the distal tip.
USE - For embolizing vascular aneurysms and similar vascular abnormalities. Used for controlling vascular bleeding to occlude blood

supply to tumors.

ADVANTAGE - Provides a vascular embolization device which effects a conformal fit within the site that promotes effective embolization. Facilitates precise and highly controllable deployment of the vascular embolization device. Effectively embolizes vascular sites having a wide variety of sizes, configurations and neck widths.

DESCRIPTION OF DRAWING(S) - The figure shows the elevational view of the vascular embolization device.

Vascular embolization device 10

Micropellets 12

Dwg.1/23

FS GMPI

FA AB; GI

L44 ANSWER 5 OF 13 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN

AN **2001-489030** [53] WPIX

CR 2001-497158 [54]; 2001-581845 [65]; 2001-625596 [72]

DNN N2001-361798

TI Computer system, includes billing module accessible to the connect server that generates accounting data based on the provision of the content in the database to the users.

DC T01 W01 W02

IN AOKI, K; EUBANKS, G C; YUKIE, S

PA (SONY) SONY CORP AMERICA

CYC 93

PI WO---200159651 A2 20010816 (200153)* EN 22 G06F-017-60

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

AU---200122934 A 20010820 (200175) G06F-011-32

AU---200124578 A 20010820 (200175) G06F-017-60

AU---200126010 A 20010820 (200175) G06F-003-00

AU---200138073 A 20010820 (200175) G06F-017-30

AU--2001222934 A8 20051006 (200612) G06F-011-32

AU--2001238073 A8 20051020 (200615) G06F-017-30

ADT WO---200159651 A2 2000WO-US035297 20001227; AU---200122934 A 2001AU-0022934 20001227; AU---200124578 A 2001AU-0024578 20001227; AU---200126010 A 2001AU-0026010 20001227; AU---200138073 A 2001AU-0038073 20010207; AU--2001222934 A8 2001AU-0222934 20001227; AU--2001238073 A8 2001AU-0238073 20010207

FDT AU---200122934 A Based on WO---200159572; AU---200124578 A Based on WO---200159651; AU---200126010 A Based on WO---200159551; AU---200138073 A Based on WO---200159622; AU--2001222934 A8 Based on WO---200159572; AU--2001238073 A8 Based on WO---200159622

PRAI 2000US-0542139 20000404; 2000US-180984P 20000208;
2000US-180985P 20000208; 2000US-180987P 20000208;
2000US-180988P 20000208; 2000US-180990P 20000208;
2000US-180991P 20000208; 2000US-180992P 20000208;
2000US-180993P 20000208; 2000US-181105P 20000208;
2000US-181127P 20000208; 2000US-181128P 20000208;
2000US-181129P 20000208; 2000US-181144P 20000208;
2000US-181145P 20000208; 2000US-181147P 20000208;
2000US-181148P 20000208; 2000US-191184P 20000322;
2000US-192264P 20000327; 2000US-0542666 20000404;
2000US-0542154 20000404; 2000US-180998P 20000208; 2000US-0542126 20000404

IC ICM G06F-003-00; G06F-011-32; G06F-017-30; G06F-017-60
ICS G08B-025-10; H04L-012-18
AB WO 200159651 A UPAB: 20060302
NOVELTY - A connect server (26) receives contents requests from a user terminal (32), and accesses a publicly vended content database (14) to fulfill such requests. A billing module (30) accessible to the connect server generates accounting data based on the provision of the content in the database to the users.
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a digitized content vending method.
USE - For vending digitized content over an Internet network path.
ADVANTAGE - User can be alerted to events that occur attendant to customized data e.g. when motion is sensed by an in-home security camera, when stock price in a user-customized portfolio reaches a predetermined threshold. User can select one or more channels for immediate display or for display at the time scheduled, thus user can be billed not only based on a song-by-song or program-by-program basis, but on the basis of the subscription services that are essentially defined by the user profile.
DESCRIPTION OF DRAWING(S) - The figure shows the schematic diagram of the computer system.
Publicly vended content database 14
Connect server 26
Billing module 30
User terminal 32
Dwg.1/4
FS EPI
FA AB; GI
MC EPI: T01-J05A

L44 ANSWER 6 OF 13 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
AN **2001-343247** [36] WPIX
CR 2002-691223 [74]; 2003-266113 [26]; 2004-339065 [31]; 2006-492530 [50]
DNN N2001-248588 DNC C2001-106231
TI Embolization device for, e.g. vascular aneurysm, comprises expandable embolizing micropellet connected to filamentous carrier at fixed location.
DC A96 P31 P32 P34
IN COX, B J; GREENE, G R; ROSENBLUTH, R F
PA (MICR-N) MICROVENTION INC
CYC 95
PI WO---200128434 A1 20010426 (200136)* EN 38 A61B-017-12
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
US-----6238403 B1 20010529 (200138) A61F-011-00 <--
AU---200077396 A 20010430 (200148) A61B-017-12
US-----6299619 B1 20011009 (200162) A61F-011-00 <--
BR---200014482 A 20020611 (200248) A61B-017-12
EP-----1225836 A1 20020731 (200257) EN A61B-017-12
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
CN-----1376041 A 20021023 (200313) A61B-017-12
JP--2003511188 W 20030325 (200330) 36 A61B-017-12
AU------777822 B2 20041104 (200504) A61B-017-12
AU--2005200324 A1 20050224 (200521) A61B-017-12
ADT WO---200128434 A1 2000WO-US026926 20000929; US-----6238403 B1
1999US-0410970 19991004; AU---200077396 A 2000AU-0077396 20000929;

US-----6299619 B1 **CIP of 1999US-0410970 19991004**, 2000US-0542145 20000404; BR---200014482 A 2000BR-0014482 20000929, 2000WO-US26926 20000929; EP-----1225836 A1 2000EP-0967148 20000929, 2000WO-US26926 20000929; CN-----1376041 A 2000CN-0813238 20000929; JP--2003511188 W 2000WO-US26926 20000929, 2001JP-0531033 20000929; AU------777822 B2 2000AU-0077396 20000929; AU--2005200324 A1 2005AU-0200324 20050127

FDT AU---200077396 A Based on WO---200128434; BR---200014482 A Based on WO---200128434; EP-----1225836 A1 Based on WO---200128434; JP--2003511188 W Based on WO---200128434; AU------777822 B2 Previous Publ. AU---200077396, Based on WO---200128434; AU--2005200324 A1 Div ex AU------777822

PRAI 2000US-0542145 20000404; **1999US-0410970 19991004**

IC ICM A61B-017-12; A61F-011-00
ICS A61B-017-00; A61L-029-00; A61M-025-00

AB WO 200128434 A UPAB: 20060804
NOVELTY - An embolization device comprises an elongate, filamentous carrier and an expandable embolizing micropellet non-releasably connected to the carrier at a fixed location.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of embolizing a vascular site comprising passing a microcatheter intravascularly so that its distal end is in a vascular site; providing a vascular embolization device comprising highly expandable embolizing micropellet(s) mechanically connected to a flexible filamentous carrier at a fixed location; passing the embolization device through the microcatheter so that it emerges from the distal end of the microcatheter into the vascular site; and expanding the embolizing micropellet in situ to fill the site with the embolizing micropellet(s) and the carrier while maintaining the connection between the embolizing micropellet(s) and the carrier.

USE - For embolizing vascular aneurysm and vascular anomalies, e.g., arteriovenous malformations, arteriovenous fistulas.

ADVANTAGE - The invented device can be deployed within a vascular site with excellent locational control and with lower risk of vascular rupture, tissue damage, or migration. It effects a conformal fit within the site to promote effective embolization and facilitates precise and highly controllable deployment through its ability to be delivered to the site through a microcatheter.

DESCRIPTION OF DRAWING(S) - The figure shows a vascular embolization device of the invention.

Embolizing micropellet 12
Microcoil spacer 16

Dwg.1/13

FS CPI GMPI
FA AB; GI
MC CPI: A12-V03D
TECH UPTX: 20010628

TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred Components: The embolizing micropellet (12) which has an initial diameter of not more than 0.5 mm is expandable to at least 3 mm and to a volume which is at least 25 times its initial volume. A second embolizing micropellet is mechanically connected to the carrier at a fixed location from the first expandable embolizing micropellet. A microcoil spacer (16) is on the carrier between the first and second expandable embolizing micropellets. The carrier includes a thin, flexible metal wire or a thin filament of polymer in a multi-looped configuration.
Preferred Method: Passing the embolization device through the microcatheter includes injecting polyethylene glycol as biocompatible, non-aqueous fluid through the microcatheter to prevent the hydration of

the embolizing micropellet with the microcatheter. Expanding includes passing saline solution through the microcatheter and into the vascular site.

TECHNOLOGY FOCUS - POLYMERS - Preferred Material: The embolizing micropellet is formed of a hydrophilic hydrogen foam material. The foam material includes a water-swellable foam matrix formed as a macroporous solid comprising a foam stabilizing agent and a (co)polymer of a free radical polymerizable hydrophilic olefin monomer cross-linked with up to 10 wt.% multiolefin-functional cross-linking agent. The embolizing micropellet is formed of polyvinyl alcohol foam, collagen foam, or poly (2-hydroxyethyl methacrylate).

TECHNOLOGY FOCUS - METALLURGY - Preferred Material: The wire is made of an alloy of nickel and titanium that exhibits good elastic memory properties.

L44 ANSWER 7 OF 13 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
AN **2000-109895** [10] WPIX
DNN N2000-084421 DNC C2000-033540
TI Blocking of tubular cavities such as urinary tract, digestive tract for treating cancer - involves introducing a water absorbing resin having a protective layer of polylactic acid containing ultrafine ferrite or magnetite powder.
DC A23 **A96** B04 D22 E31 P31 P34
PA (TAKE-I) TAKEUCHI Y
CYC 1
PI JP----11347038 A 19991221 (200010)* 7 A61B-017-12
ADT JP----11347038 A 1998JP-0194944 19980605
PRAI 1998JP-0194944 19980605
IC ICM A61B-017-12
ICS A61B-017-36; A61M-031-00; C08J-003-28; C08J-007-06; C08L-071-02
AB JP 11347038 A UPAB: 20000301
NOVELTY - A water absorbing resin having a protective layer (12) of polylactic acid containing ultrafine ferrite or magnetite powder is used for blocking peripheral blood circulation in tubular cavities. The resin at the specified space absorbs water and leads to **embolism** of the tubular cavities temporarily. DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for the device used for blocking tubular cavities.
USE - Blocking of tubular cavities such as urinary tract, digestive tract etc is useful for treating cancer. By devitalizing cancer cells, spreading of cancer to other tissues is prevented. Urinary tract blockage is useful at the time of contraception.
ADVANTAGE - Selective blockage of tubular cavity can be carried out.
DESCRIPTION OF DRAWING(S) - The figure shows water absorbing resin. (12) Protective layer.
Dwg.1/4
FS CPI GMPI
FA AB; GI; DCN
MC CPI: A05-E02; A12-V01; B04-C03D; B04-D02; **B11-C04A**; B14-H01; B14-H01B; B14-P01; D09-C01; E35-U02

L44 ANSWER 8 OF 13 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
AN **1999-312417** [26] WPIX
DNN N1999-233329 DNC C1999-092193
TI Hemocompatible polymers linked to pharmacological agents.
DC **A96** B04 D22 P34
IN PLATE, N A; SINANI, V A; UZHINOVA, L D; VALUEV, L I
PA (TOPE) TOPCHIEV PETROCHEM SYNTHESIS; (TOPE) TOPCHIEV PETROCHEM SYNTHESIS INST

CYC 79
PI WO-----9916475 A2 19990408 (199926)* EN 48 A61L-000-00
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW
W: AL AM AU AZ BA BB BG BR BY CA CN CZ EE GE HU ID IL IS JP KE KG KR KZ LC LK LR LS LT LV MD MG MK MN MW MX NO NZ PL RO RU SD SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW
AU-----9892788 A 19990423 (199935) A61L-000-00
US-----5945457 A 19990831 (199942) A01N-001-00
ADT WO-----9916475 A2 1998WO-IB001622 19981001; AU-----9892788 A 1998AU-0092788 19981001; US-----5945457 A 1997US-0942571 19971001
FDT AU-----9892788 A Based on WO-----9916475
PRAI 1997US-0942571 19971001
IC ICM A01N-001-00; A61L-000-00
ICS A01N-001-02
AB WO 9916475 A UPAB: 20011203
NOVELTY - Hemocompatible composition comprises a polymer containing at least one pharmacological material other than heparin, chemically bonded to a polymer backbone such that the pharmacological material retains its biological properties.

DETAILED DESCRIPTION - Hemocompatible composition containing pharmacological material or materials other than heparin, bonded chemically to a polymer backbone so that the pharmacological material or materials retain its/their biological properties; optionally with incorporation of other pharmacological material or materials into the polymer physically.

INDEPENDENT CLAIMS are also included for:

(1) preparation of biologically active polymer compositions which retain their activity over a prolonged time period, comprising:

(a) functionalising pharmacological material or materials, other than heparin, by reacting with an acyl halide;

(b) copolymerising with a monomer or monomers to form a hydrophilic polymer, or grafting onto a hydrophobic or hydrophilic polymer to modify it; and optionally

(c) incorporating one or more pharmaceutical materials into the modified polymer physically; and

(2) a medical device with one or more parts comprising the hemocompatible composition.

MECHANISM OF ACTION - Lysine and adenine favor sorption of profibrinolysin, a precursor of fibrinolysin so that there is a long term clot-dissolving activity. Salicylic acid and adenine derivatives inhibit aggregation of platelets on the surface. The optional irradiation treatment can modify polymers, which are not hemocompatible, so that they become hemocompatible, after incorporation of the pharmacological materials.

USE - The composition is used for implants, medical devices, and parts of complex apparatus coming into direct contact with blood; also for coatings for them. The implants include drug delivery systems; the medical devices include drains for body fluids, heart valves, vascular grafts, tendons, reinforcing meshes, prostheses (e.g., esophageal), or ureter or gastrointestinal segments; complex devices are those which simulate physiological organs, including artificial kidney (blood dialysis), lung (blood oxygenation), heart, and pancreas.

ADVANTAGE - The incorporated pharmacological material retains a high level of activity, and maintains it over long periods, of weeks, months, or even years. This is in contrast to some prior art solutions of the problem.

FS CPI GMPI
FA AB; DCN

MC CPI: A12-V02; A12-V03; B06-D09; B10-B01B; B10-C03; **B11-C04A**; B14-F04; D09-C01C; D09-C01D

ABEX UPTX: 19990707

EXAMPLE - A solution of trypsin (300 mg) in NaHCO3 pH 8 buffer (20 ml) was treated with CH2=CHCOCl (68.4 mg) at 0degreesC with stirring for 15 minutes, then warmed to room temperature. Acrylamide (2.97 g), N5-methacryloyl-L-lysine (30 mg), and N,N'-methylenebis-acrylamide (150 mg) in water (20 ml) were added, the mix purged with argon, and 0.03 wt.% of NH4 persulphate and (CH2NMe2)2 added. Polymerisation was for 1 hour. The resultant gel was reduced to small size particles, washed with water and saline, then allowed to swell in blood plasma for 5 hours. This material had a **blood clotting** time of 134 minutes.

TECH UPTX: 19990707

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Components: The pharmacological materials are e.g. L-lysine, adenine, salicylic acid, plasmin, enzymes or their inhibitors, antibiotics, and their combinations.

TECHNOLOGY FOCUS - POLYMERS - Preparation: The acyl halide is acyl chloride. For hydrophobic polymers, it may be necessary to irradiate the polymer before graft polymerisation with the pharmacological material or materials; the radiation dose should be sufficient to result in a graft copolymer having at least 25 weight-% of the substrate polymer grafted, but not enough to cause appreciable polymer degredation. Optionally, the materials may be hydrophilic on one surface and hydrophobic on the other.

L44 ANSWER 9 OF 13 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN

AN **1999-263186** [22] WPIX

CR 1997-178903 [16]

DNN N1999-196012 DNC C1999-077544

TI Improved **embolic** materials for occlusion of vascular elements and fallopian tubes by injection.

DC A18 A25 **A96** B04 D22 P32

IN GUGLIELMI, G; JI, C

PA (REGC) UNIV CALIFORNIA

CYC 1

PI US-----5894022 A 19990413 (199922)* 9 A61F-013-00

ADT US-----5894022 A CIP of 1995US-0519738 19950828, 1997US-0946608 19971007

PRAI 1997US-0946608 19971007; 1995US-0519738 19950828

IC ICM A61F-013-00
ICS A61K-009-14

AB US 5894022 A UPAB: 19990609

NOVELTY - Improved **embolic** materials for occlusion of vascular elements and fallopian tubes by injection comprise semi-solid/semi-liquid material in which a matrix base is insolubilized to entrap aqueous solution and liquid oil base.

ACTIVITY - **Embolic.**

USE - Used for endovascular occlusion of vasculature and fallopian tubes (claimed). Used for **embolization** in abnormal microvasculature beds or nidi. Used to administer hemostatics, positive electrical charge donators, sclerotic agents, anticarcinogens, radioactive agents.

ADVANTAGE - Permanently occludes the **embolized** vasculature. Prepared from aqueous solution and liquid oil, allowing inclusion of water-soluble and liposoluble medicaments as well as liposoluble modifiers (phospholipids), water-soluble modifiers (polyethylene glycol) and stabilizing agents (ascorbic acid, tocopherol) to modify the physical properties of the composition and/or protect the added medicaments. May include sclerosant to encourage formation of scar tissue in occluded lumens (claimed) e.g. tetracycline. Inclusion of radioactive agents allows

monitoring of administration by the physician. Frictional characteristics are reduced facilitating injection of the material through e.g. hollow needles and catheters. Inclusion of semi-solid particles or multipurpose particles (MPP), which are soft and flexible with excellent deformability, allows easy access into **embolizing** vascular beds or nidi and more complete **embolization** than prior art. In addition, MPP are radio-opaque and easily visible under fluoroscopic monitoring, avoiding pulmonary **embolism** and infarction, and iatrogenic or physician-induced complication or transcatheter **embolization.** The MPP slowly release included medications at the site of **embolization** to reach the highest local effects without significant systemic disturbance. Ten swine (mixed sex; 50-60 lb) were used for an in vivo test of multipurpose ointment containing sclerosing agents tetracycline and doxycycline (MPO1) compared with generic composition without sclerosing agents (MPO). Animals 1-6 underwent **embolization** of rete and ascending cervical artery using the test composition, animals 7-8 underwent **embolization** of lung and rete with test composition using MPO1 and the ascending cervial artery with MOP, and animals 9-10 underwent bilateral rete **embolization** with polyvinyl alcohol (PVA) particles as control. Angiography was performed just before and just after **embolization** and followed up at 1- and 2-week and 1-, 2-, 3-, and 6-month intervals. Animal 1 was sacrificed on day 1, animal 2 at 2 weeks following **embolization**, animals 2, 3,4 and 7 at 2 months, animal 8 at 3 months and animals 5, 6, 9, and 10 at 6 months. All **embolized** vessels and lungs were harvested for pathology and spleen and lymph node samples collected for histology. All other organs were subjected to gross examination. No recanalization was found by angiography for up to 6 months in the MPO1 group, but occurred in all conventional PVA **embolized** retes. The degree of feeding artery reopening was 20-80% and tended to increase over time. After the main feeder pharyngeal artery and rete was **embolized** with MPO, immediate post-**embolzation** angiographies showed 20-35% of the rete microvasculatures remained patent or unembolized. In MPO1-treated animals, only 0-10% of the rete remained open. Follow-up angiographies of the MOP group showed the middle meningeal branch enlarged with time and its feeding portion of the rete extended into the previously **embolized** organs. The percentage of patent vessels in the rete increased to 50-70%. In the MPO1 group, no change or very small changes in size of the collateral branch and its domain were seen.

Dwg.0/0

FS CPI GMPI
FA AB
MC CPI: A05-H03; A10-E09B2; A12-V01; **B11-C04**; B11-C09; D09-C01
ABEX UPTX: 19990609

ADMINSTRATION - Administration is by injection (claimed).

TECH UPTX: 19990609

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred materials - The liquid oil base is radio-opaque. The materials further comprise sclerosant to encourage formation of scar tissue in the occluded lumens. The semi-solid/semi-liquid material comprises water-insoluble microscopic mesh of fibrin to entrap the aqueous solution and the liquid oil.

L44 ANSWER 10 OF 13 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
AN **1998-341094** [30] WPIX
DNN N1998-267239 DNC C1998-104970
TI **Embolic** material - comprises biocompatible and absorbable collagen having shape restoring property when absorbing water.
DC **A96** B04 D22 P31 P34
PA (KOKE) KOKEN KK

CYC 1
PI JP----10127754 A 19980519 (199830)* 5 A61L-027-00
ADT JP----10127754 A 1996JP-0293706 19961106
PRAI 1996JP-0293706 19961106
IC ICM A61L-027-00
ICS A61B-017-12; A61K-038-17
ICA A61K-049-04
AB JP 10127754 A UPAB: 19980730
Embolic material comprises a biocompatible and absorbable collagen having shape restoring property when absorbing water.
The original form of the **embolic** material is preferably a stick, coil, sponge or granules. The material is crosslinked. The material also contains X-ray contrast medium. The material is obtained by adding or penetrating a softening agent (especially glycerol) to a moulding.
ADVANTAGE - The **embolic** material disappears after vascular obturation , so extraction of the material is not required. The material promotes **embolisation** and leads to an early cure.
Dwg.0/0
FS CPI GMPI
FA AB
MC CPI: A03-C01; A12-V; A12-V01; B04-N02; B10-E04C; **B11-C04**; B14-F08; D09-C

L44 ANSWER 11 OF 13 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
AN **1998-130442** [12] WPIX
CR 1998-130379 [12]
DNN N1998-102957 DNC C1998-043080
TI Treating aneurysm - by introducing **embolic** material permitting tissue ingrowth, material being expandable from small volume on introduction to larger volume on contact with blood.
DC A14 A25 A26 **A96** B07 P34
IN GREFF, R J; JONES, M L
PA (MICR-N) MICRO THERAPEUTICS INC
CYC 77
PI WO-----9804315 A1 19980205 (199812)* EN 19 A61M-029-00
RW: AT BE CH DE DK EA ES FI FR GB GH GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW
AU-----9735772 A 19980220 (199828) A61M-029-00
ADT WO-----9804315 A1 1997WO-US011003 19970618; AU-----9735772 A 1997AU-0035772 19970618
FDT AU-----9735772 A Based on WO-----9804315
PRAI 1996US-0690075 19960731
IC ICM A61M-029-00
AB WO 9804315 A UPAB: 19980323
An expandable plug (40) is used to treat a vascular aneurysm. It consists of a biocompatible material which is expandable from a first constrained volume to a second larger volume. A blood soluble agent is in contact with the expandable material to hold it in the constrained volume until contacted by blood. Also claimed is a method of delivering the expandable plug using an elongate, flexible delivery device (29), the plug in its constrained state being secured to its distal end. The plug is advanced to the treatment site where it is exposed to blood causing the material to expand.
The plug may consist of an open cell structure foam, to which cells may bind to stimulate **embolisation** and **thrombosis.**

Open cell foam is preferred. Suitable materials include cross-linked polyvinyl alcohol (PVA), polyurethane foam, polyethylene foam, silicone foams or fluorinated polyolefin foams. The plug may be attached to insertion wire (29) in various ways.

USE - The plug is inserted into an aneurysmal sac to promote **thrombus** formation to treat the aneurysm.

ADVANTAGE - The treatment minimises any interference with blood flow, can be used to treat aneurysms in small diameter vessels, and located on either straight or curved portions of the vessel. It uses the body's own healing processes to treat the aneurysm.

Dwg.6A/8

FS CPI GMPI
FA AB; GI
MC CPI: **A12-V03D**; **B11-C04**; B14-F02; B14-H01

L44 ANSWER 12 OF 13 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
AN **1998-130379** [12] WPIX
CR 1998-130442 [12]
DNN N1998-102921 DNC C1998-043040
TI Expandable plug for treating aneurysm - comprises blood soluble agent in contact with expandable biocompatible material.
DC **A96** B07 P31
IN GREFF, R J; JONES, M L
PA (MICR-N) MICRO THERAPEUTICS INC
CYC 76
PI WO-----9804198 A1 19980205 (199812)* EN 28 A61B-017-12
RW: AT BE CH DE DK EA ES FI FR GB GH GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN
AU-----9736620 A 19980220 (199828) A61B-017-12
US-----5823198 A 19981020 (199849) A61B-019-00
ADT WO-----9804198 A1 1997WO-US012221 19970721; AU-----9736620 A 1997AU-0036620 19970721; US-----5823198 A 1996US-0690075 19960731
FDT AU-----9736620 A Based on WO-----9804198
PRAI 1996US-0690075 19960731
IC ICM A61B-017-12; A61B-019-00
AB WO 9804198 A UPAB: 19980323

Expandable plug (40) used to treat a vascular aneurysm comprises a biocompatible material which is expandable from a first constrained volume to a second larger volume. A blood soluble agent is in contact with the expandable material to hold it in the constrained volume until contacted by blood. Also claimed is a method of delivering the expandable plug using an elongate, flexible delivery device (29), the plug in its constrained state being secured to its distal end. The plug is advanced to the treatment site where it is exposed to blood causing the material to expand.

The plug preferably comprises an open cell structure foam, to which cells may bind to stimulate **embolisation** and **thrombosis** . Open cell foam is preferred. Suitable materials include cross-linked polyvinyl alcohol (PVA), polyurethane foam, polyethylene foam, silicone foams or fluorinated polyolefin foams. The plug may be attached to insertion wire (29) in various ways.

USE - The plug is inserted into an aneurysmal sac to promote **thrombus** formation to treat the aneurysm.

ADVANTAGE - The treatment minimises any interference with blood flow, can be used to treat aneurysms in small diameter vessels, and located on either straight or curved portions of the vessel. It uses the body's own

healing processes to treat the aneurysm.
Dwg.6A/8
FS CPI GMPI
FA AB; GI; DCN
MC CPI: **A12-V03D**; B04-C03B; **B11-C04**; B14-F02; B14-H01

L44 ANSWER 13 OF 13 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
AN **1994-341506** [42] WPIX
DNN N1994-267899· DNC C1994-155535
TI Improving biocompatibility and protein binding resistance - of medical or laboratory appts., by forming hydrated polymer coating using aqueous solution of
poly isocyanate-capped oxyethylene prepolymer..
DC A25 **A96** B04 B07 D16 G02 J04 P34
IN BRAATZ, J A; CURTIN, C; CUSTER, L M; GUNTHER, V J; HEIFETZ, A H; OKKEMA, A T
PA (GRAC) GRACE & CO-CONN W R
CYC 44
PI WO-----9423771 A1 19941027 (199442)* EN 48 A61L-033-00
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE
W: AT AU BB BG BR BY CA CH CN CZ DE DK ES FI GB HU JP KP KR KZ LK LU LV MG MN MW NL NO NZ PL PT RO RU SD SE SK UA UZ
AU-----9463670 A 19941108 (199507) A61L-033-00
ADT WO-----9423771 A1 1994WO-US002893 19940318; AU-----9463670 A 1994AU-0063670 19940318
FDT AU-----9463670 A Based on WO-----9423771
PRAI 1993US-0046116 19930409
REP EP----335308; EP----355687; EP----502591
IC ICM A61L-033-00
ICS A61L-027-00; A61L-029-00
AB WO 9423771 A UPAB: 19941212
The biocompatibility and resistance protein binding of medical or laboratory devices are increased by: (a) forming an aqueous solution of a prepolymer (I) in which at least 75% of the units consist of oxyethylene-based diols or polyols having mol. weight 7000-30000, (almost) all of the OH gps. of the diols or polyols being capped with polyisocyanates; (b) depositing the (I) solution on at least part of the device; and (c) forming a hydrated polymer coating on the device. Polymer-coated medical or laboratory devices obtd. by the process are claimed, as are haemoperfusion systems including the coated devices.

USE - The device is specifically particulate silica or charcoal, a filter or tubing (all claimed). Typically the device is tubing for use in medical devices or procedures requiring contact with blood, other protein-containing fluids or tissue, e.g. kidney dialysis or haemoperfusion appts., artificial organs or catheters. Other applications include laboratory appts., e.g. (diagnostic) assay plates, cell culture appts., blood cell storage bags, filters and appts. for mfr. and packing or pharmaceuticals or for isolation and purificn. of proteins. Coated silica or charcoal particles are used e.g. for removing toxic protein contaminants or drugs from blood; or in separation of proteins by size exclusion chromatography. Materials to be coated are e.g. glass, polystyrene, silicone, 'Teflon' (RTM), rubber, metal, wood, cloth, PVC, nylon or inorganic materials (e.g. silica gel or charcoal).

ADVANTAGE - The coatings are hydrophilic, transparent, biocompatible and non-toxic. They have long life and good resistance to protein absorption (which can cause occlusion or clogging of polymers, clouding, contamination, assay interference, irritation to adjacent body tissues, loss of tissue or body fluid protein by irreversible adsorption of denaturation, or (in blood) **thrombogenesis**, complement

activation or calcium deposition). The coatings, in dense or thin (e.g. monomolecular) form, are prepared by in situ crosslinking with water, without use of organic solvents and consequent toxicity risks.
Dwg.0/0

FS CPI GMPI

FA AB; DCN

MC CPI: A10-E24; A11-B05D; A12-L04; **A12-V03D**; B04-C03C; B04-C03D; B04-N02; B05-B02C; B05-C06; **B11-C04**; B11-C06; B12-K04A; B12-M04; D05-H; G02-A05; J01-D01A